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by IAN BEVAN

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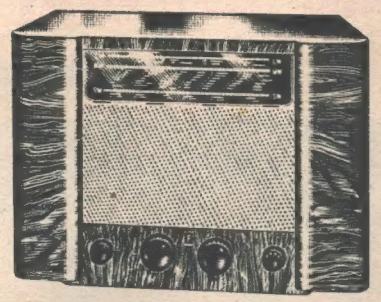

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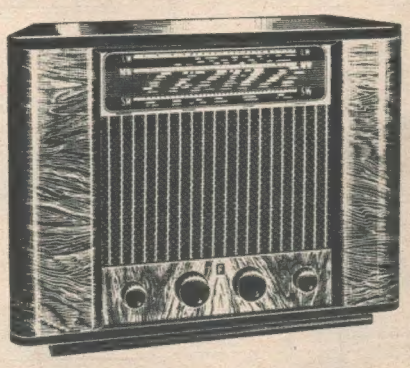

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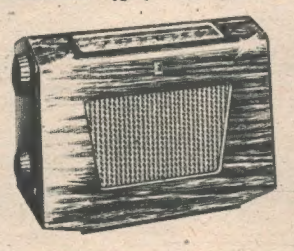

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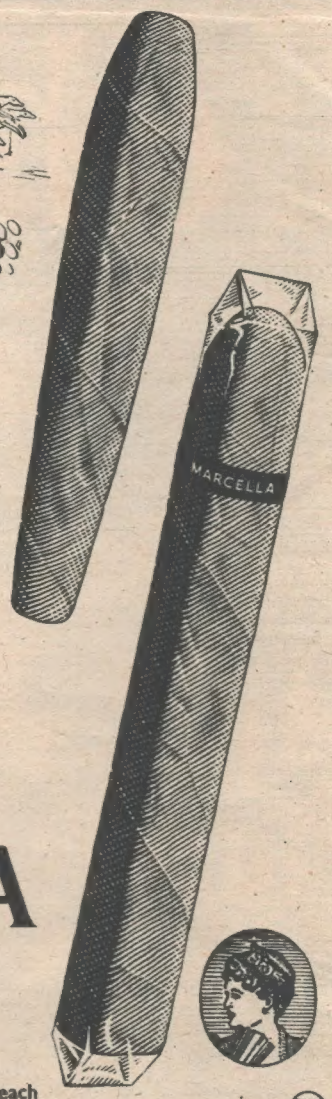

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EDITORIAL

More police—or we shall get more robbery and rape!

THERE NOT ONLY seems to be more crime, judging from the headlines. There *is* more.

This year's wave of child murders, attacks on women, violent assaults and spectacular robberies is a symptom of a serious renewed increase in law-breaking.

Gone are the easy hopes that once the so-called "inevitable" crime wave after the war had subsided we should have mastered the problem.

The brutal fact is that crime will always increase unless you do enough to stop it, unless you make sure that it neither pays nor even seems to pay, unless the visible power of the law is great enough to deter recruiting for the armies of the underworld.

The tragedy is that the answer is well known. All we have to do is to apply it! The answer is *more police.*

All the greatest experts agree that the strongest deterrent to law-breaking is the man in blue, walking his beat everywhere and all the time.

There are not nearly enough ordinary "bobbies" to patrol adequately the oldest, most crowded town areas let alone the great new housing estates, both prewar and postwar, which have never had adequate police protection.

In such districts during the past holiday season there has been a spate of burglaries and breakings-in to houses left empty while the family was at the seaside. There were too few police to deter either professional criminals or the young hooligans who perpetrate many of these empty house robberies.

In England and Wales alone the police forces are 11,000 men below strength—and that means a lot of beats unpatrolled and a drastic thinning out of the protection given to law-abiding folk.

NOT only are there too few police, but the demands on their services increase. Traffic duties and the attempt to enforce our chaotic road laws take far too many men away from what used to be the prime duties of the force—protection of persons and property from criminals.

The modern policeman, in fact, is becoming a man-of-all work for the community.

Well, if that is what the authorities wish and intend, they must take steps to supply enough police to do all the different jobs. So far they are not taking those steps, and they appear to be losing sight of the fact that the first business of the police must remain crime prevention.

The proofs of this official folly, published by the Home Office for all to read, show that two years ago there was an encouraging drop in the figures of what the law calls "indictable offences"—although there were still nearly twice as many as in 1938.

Last year, however, the crime wave, instead of continuing to fall, rose again, although this was a time of personal prosperity, with full employment, higher wages and the benevolent effects of the social services to counter the urge of poverty towards crime.

Throughout the figures runs the same warning. It is those very crimes against property and the person which would not take place if a policeman was known to be "just around the corner," that have increased significantly. Wounding has jumped from a 1945-49 average of 3,659 to 5,177; rape and similar offences from 6,425 to 8,241; malicious injury to property from 3,075 to 4,518.

HERE is a fearful indictment of the weakness of law enforcement. It is not offset by such minor triumphs as stopping the Hyde Park handbag-snatchers.

Indeed, the Hyde Park episode is one more proof of the absolute need of more police. To tackle what had become a considerable London scandal, enough officers and police dogs were provided. Result—the end of a local crime nuisance.

Extend the same method into wider fields of crime prevention and we shall get the same good results.

But, complain the authorities, they can't get the police recruits. There is too much competition for reliable men of good physique. Honesty, intelligence and initiative all find higher rewards in our thriving industries. There is even a reluctance to submit to uniformed discipline.

All this simply comes down to the fact that a police career has not yet been made attractive enough.

In August the police got a rise. All ranks from constable to inspector were awarded an extra £70 a year or more following their last increase in 1949.

Will these rises be enough to draw 11,000 extra men of the right type? Even now a policeman holding the exalted rank of chief superintendent is still restricted to a maximum of £1,080 a year.

The public will watch the effect of these increases during the next few months—but it seems likely that both pay and conditions of service must be improved still further to get us enough policemen.

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AT THAT MOMENT we saw from the mast a shadow bigger than Knut himself coming up behind him, deeper down. We shouted warnings as quietly as we could so as not to create a panic. . . . But the shadow belonged to a still better swimmer, which shot up from the depths and gained on Knut. They reached the raft at the same time. While Knut was clambering aboard, a six-foot shark glided right under his stomach and stopped beside the raft. We gave it a dainty dolphin's head to thank it for not having snapped.

From THE KON-TIKI EXPEDITION by Thor Heyerdahl

HE LOWERED HIS ARMS in a gesture that requested them to sit down. Nobody was willing to obey, for all wanted to see everything that might happen. Then, like a long, incoming tidal wave, the impulse swept the throng until all were seated. The Carpenter held up an outspread hand and there was silence . . . a unifying silence that made them kin.

From THE BIG FISHERMAN by Lloyd C. Douglas

IT WAS TAKEN FOR GRANTED that any Party member coming into possession of information useful to the cause of Communism or the Soviet Union (which meant the same thing) would pass it on. It would be treachery not to do so.

From I BELIEVED by Douglas Hyde

THESE passages are from three famous forthcoming books. They are only three out of six well-known titles which JOHN BULL readers can obtain for their own shelves by joining the 200,000 satisfied members of WORLD BOOKS, the Book Club of Quality.

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But with a Dalmas first-aid dressing you can cook in comfort

THE busy housewife can't take time off for minor injuries—that's why it's wise to keep a tin of Dalmas handy. These unique dressings stretch to fit in all directions, allowing for complete freedom of movement. Since they're waterproof and won't fray or come off, you can get on with your tasks without noticing you're wearing one. Dalmas first-aid dressings are sold in 1/- tins. Dalmas strapping—without medicated pad—is 1/- a spool. It has 101 first-aid uses.

Look for the blue tin with the white hand

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WATERPROOF FIRST-AID DRESSINGS

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September 29, 1951 VOL. 90 No. 2361 PHONE: TEMPLE BAR 2468 GRAMS: HEROICALLY, WESTCENT, LONDON

FREE SPEECH

The boy who seldom sees his mother

GRIEVOUS WRONG CAN BE DONE to children whose mothers go out to work. They must turn to others for the interest and sympathy which children so badly need.

At least, those were my reflections when a small boy attached himself to me in a public park. He showed me his treasures, the usual oddments a small boy accumulates, and then told me of his examination results at the end of last term. When I remarked, "Your mother must have been very proud of you," he replied: "Oh, I don't know. I don't see much of her, you know. She goes to work before I am up and when she gets home she is too busy to talk much and then I have to go to bed at half past seven, so that she and my dad can go out."—G. H. LANGFORD, Woodstock Hotel, Highbury Grange, London, N.5.

Circle Squared

Thomson shines

HOW DID the boy manage to get a square reflection from his mirror, as shown in A. R. Thomson's cover picture (JOHN BULL, September 8)? Every attempt I ever made resulted in a circular reflection, no matter what the shape of the mirror.—F. J. BREWSTER, 39 Shadwell Drive, Northolt, Middx.

Thomson showed the reflection correctly. The Department of Scientific and Industrial Research says: "If you have a mirror which is six inches square, reflecting the sun across a street, say thirty-five feet wide, the reflection will be a patch ten inches square, with the corners rounded and very blurred. If the mirror were one-third the size, or the street three times the width, the reflection would be round." The National Physical Laboratory says: "The light from the sun may be considered as a parallel beam. Only that part of the beam which actually strikes the reflecting surface will be reflected."

Guinness In Stripes

ELKAN ALLAN'S ARTICLE on Alec Guinness (JOHN BULL, September 8) especially interested me because, while on holiday in Llandudno, I worked as an extra in a film in which Guinness was starring. Besieged by autograph hunters, young and old, he was always courteous and obliging and, after playing one of the beach scenes, he posed in the unbecoming bathing attire of 1900—a striped, knee-length affair—while spectators took snaps of him.—MRS. DOROTHY GOODELL, 4 Reedville Road, Bebington, Wirral, Cheshire.

Teenager's Answer

AS A WORKING TEENAGER, here is my answer to your reader's question as to the amount that a girl just starting work should be allowed to keep out of her wages as pocket-money. When I started work, aged fifteen, I earned 35s. a week, of which I kept 5s. As my earnings have gone up, my pocket-money has increased and, now that I am eighteen, it amounts to 14s. 6d., which pays for amusements, cosmetics, magazines, hairdressing and sweet rations. I get plenty of enjoyment out of it.—MISS EILEEN SMITH, 45 Havers Avenue, Arnold, Notts.

Garden Without Soil

FOR SOME TIME NOW, we have been growing plants without soil. We use two methods. In the first, seeds are placed on a bed of some inert substance, such as glass wool, and then suspended in a wire-netting frame over a water tank containing various chemical salts. A few strands of glass wool are allowed to hang into the solution. Germination is rapid and the plant reaches maturity in less than half the normal time. In the second method, sand replaces the seed bed and water tank. Turnips, potatoes, cucumbers, grapes and tomatoes are suitable for growing by these methods.—F. and J. NORBURN, 118 Springhill Road, Shotts, Lanarkshire.

Greetings From The Mayor

ON MY SON'S first birthday, we were delighted when a card arrived for him addressed from the Mayor's Parlour, wishing him many happy returns and containing inside a message from the mayor and some advice on feeding, clothing, fresh air, exercise and immunization. How many other towns have this happy idea?—E. MORGAN, 83 Darley Street, Farnworth, Lancs.

Joint Isolation

RECENTLY I ATTENDED a course on Joint Consultation, organized by the British Electricity Authority. It was a very good course, at which speakers stressed the need for more consultation at all levels. But the joke was that only two people attended from our power station—the deputy station superintendent and myself; and to travel the fifty miles to the course, he was given a first-class ticket and I a third. There would have been no consultation on the way if my discerning deputy chief had not asked about the arrangements and travelled third-class with me.—CLERK.

Bats Prefer Insects

I HAVE READ WITH INTEREST Keith Ellis's article "Groping Into The World Of Bats" (JOHN BULL, September 8), describing the work which the Devon Speleological Society is carrying out on cave-dwelling bats. I am afraid, however, that, in the context, some readers may have taken seriously my purely frivolous remark: "There are no Vampires in Britain. But Greater Horseshoes may have acquired a taste for human blood by biting us." I would not like readers to get the impression that there is any likelihood at all of any British bat developing blood-sucking tendencies. Their normal diet is insects and they bite only in self-defence.—JOHN HOOPER, Hon. Recorder, Devon Speleological Society.

. . . Keith Ellis said that human beings cannot hear the squeak of a bat. Both my ten-year-old brother and I can hear them quite plainly.—ALEX PILCHER (aged 12), Pear Tree House, Challock, Ashford, Kent.

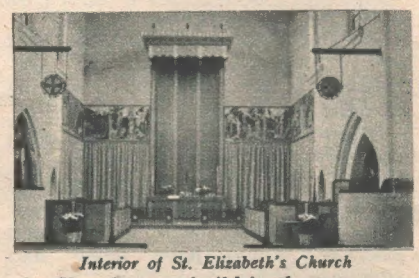
Ability to detect high-frequency sounds varies, and declines with age. A child can sometimes hear the squeak of a bat but an adult can rarely do so.

THIS WEEK'S COVER

THAT'S an English summer—that was. But it couldn't damp some folk's spirits, as A. R. Thomson, R.A., found while painting this scene at Hayling Island. Thomson calls it a "tribute" to those whom the weather couldn't beat.

Churches That Attract

LOOKING AFTER a "modern" church—St. Elizabeth's, Eastbourne—as caretaker and verger, I notice that visitors are always impressed with the interior design, the modern lighting and the lightness—the only stained glass being a small round window in the Lady Chapel. Schools, cinemas and theatres are built to attract people, and surely



Interior of St. Elizabeth's Church

the Church must build in the same way if it is to survive.—H. S. FULLER, 65 Royal Sussex Crescent, Eastbourne, Sussex.

. . . Why build a church to look like a cinema? The design of a church is traditional and it is unmistakably a church. Please let's keep it that way.—FREDERICK S. MEPSTEAD, 14 Eliot Drive, Ilkeston, Derby.

Road War Truce

HERE IS A VISITING CANADIAN'S VIEW of road safety in Britain. It seems that people will queue patiently for shops, buses, cinemas and most other things, but won't accept this same discipline when it comes to risking their necks. I'm referring to the devil-may-care attitude of pedestrians towards traffic lights and street crossings. Why not call a truce in this war of pedestrians versus motorists?—B. MARCUSE, 24 Queen's Gate Terrace, London, S.W.7.

. . . In Australia, regular instruction is given to schoolchildren by policemen and sometimes policewomen. Senior students are instructed in the work of traffic policemen and it is a common sight to see a boy of thirteen or fourteen taking the policeman's place.—MRS. D. M. LAKER, North Rocks, New South Wales, Australia.

Help For House Buyers

SOME TIME AGO, I applied to a local authority, under the Small Dwellings Acquisition Act, for a loan to buy a house. But the maximum loan offered was too small to help the average house purchaser. Repayment terms are favourable for the buyer who needs only a few hundred pounds but, until councils revise their ideas of housing values, few people can benefit.—WILLIAM G. MILLER, 23 Hazelwood Drive, Pinner, Middlesex.

Local authorities have power under the Acts to advance up to ninety per cent of the value of the property. The scheme is limited to houses with market values of not more than £500.

Letters intended for publication should be marked "Free Speech" and include the sender's full name and address. John Bull pays a guinea for every letter printed. Readers with personal problems should send inquiries (other than medical) to John Bull Free Advice Service with a stamped, addressed envelope for reply.

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See how Bournville Cocoa helps keep down *your* cost of living! It's the most likeable, economical and most valuable bedtime drink you can buy. Children love it; made with milk it's a real source of extra nourishment. Every 1/7½ tin makes 56 delicious cupfuls.

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1/7½ sufficient for 56 CUPS

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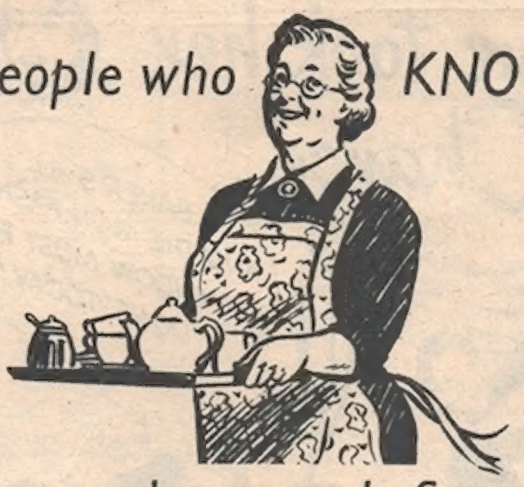
People who  *KNOW—*

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A stout that really revives you

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Although the slightly bitter taste of most stout is widely liked, some people prefer the smoother, softer flavour of Mackeson's. They find a new lease of life in every glass — welcome indeed when the long day's work is done.

That's why some people prefer

MACKESON'S

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Jane took her Chance

1. "I had been assistant window dresser at the big stores for two years. Doing all the odd jobs and learning fast all the time. I loved designing displays—perhaps one day I'd be famous in the store business. Then, by accident, my big moment came."

2. "I said I could do this job for Baker. 'All right, I believe in giving youngsters opportunities' said the General Manager. I had to race the clock. I put everything I knew into it, and it was a great success. I'm glad I took the chance, because now Baker's promoted I'm in charge of all fashion displays!"

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Where there is free enterprise everyone benefits. It gives you, and every man and woman with courage and initiative, the chance to be successful and to lead a full and happy life.

Free Enterprise gives everyone a chance

FREE ENTERPRISE CAMPAIGN 2A

CAN COLDS BE STOPPED?

Bacteriologists know that germs have an "incubation period." This fact has pointed the way to a treatment that shows good results in tackling the all-too-common Cold.

A few years ago it was widely thought that once you felt a Cold coming on, there was nothing you could do about it.

To-day we know rather more about Colds and the Cold "germs." We know that all germs have an "incubation period." The incubation period of the Streptococcus, for instance—one of the germs that cause most of the misery of Colds—is from 24 to 36 hrs.

real chance of stopping the Cold from developing.

Fortunately, Nature gives very early warnings that a Cold is on the way—the first sneezes, a "throat," or the dampness we suddenly notice on our handkerchief. So we *are* given the opportunity of adopting the treatment in time.

Isn't it better to take these active steps in the reasonable hope of stopping a Cold, rather than resigning yourself to ten or more days of positive misery or discomfort?

TREATMENT AT VERY FIRST SYMPTOMS PROMISES SUCCESS

This fact about incubation suggested that if an antiseptic treatment could be adopted *at the very first symptoms*, there would be a good chance of killing the germs before they could multiply in the nose and throat and so get a real hold on the system.

It was further thought that if this local attack on the germs could be combined with an *internal action*, to help deal with the germ toxins (poisons) that so quickly invade the system, then there was additional hope of success.

THE T.C.P. "TWO-WAY" TREATMENT ACTS LOCALLY AND INTERNALLY

The "Two-Way" Treatment with T.C.P.—a *really* safe Antiseptic with a most effective action against germs—does provide both a local and internal action.

That is why, if the treatment is adopted at the very first symptoms—while, that is, the Cold germs are in the "incubation period"—you have a

How to tackle a COLD

at first symptoms—with the T.C.P. 'Two-Way' Treatment

1. GARGLE FREQUENTLY WITH T.C.P. *At the very first symptoms*, start gargling and rinse out the nostrils every few hours with diluted T.C.P. This treatment tackles the infection at its source. At the same time it rapidly relieves sore throat and clears clogged nostrils.

2. TAKE INTERNAL DOSES OF T.C.P. *Three times a day*, drink a teaspoonful of T.C.P. in water. These doses help to clear the system of the Cold toxins that cause feverishness. It is this *extra* internal action that checks Colds so quickly.

T.C.P. is obtainable from Chemists only, in 1/9 & 3/9 bottles.

SORE THROAT? *Try* T.C.P. THROAT PASTILLES—*with the pleasant black-currant flavour.*

THESE DOGS have one thing in common. They are in lovely condition, with their bright eyes, handsome coats and friendly alertness. What about your dog?

NEVER THIS

Every dog owner has seen this sorry sight at some time—an unhappy listless dog, leaving his food uneaten, continually scratching. Don't let *your* dog get like that!

Condition counts!

Food and regular exercise are not enough. There are certain essentials which every dog must have every day to be really fit.

Bob Martin's Condition Powder Tablets contain Vitamin D and calcium, Vitamins of the B group and iron together with other necessary mineral elements.

Give one Bob Martin's once every day to *your* dog or puppy, and watch the difference it makes as he comes into condition. His tail will wag his thanks!

Daily Bob Martin's-doggy good health

JOHN BULL PHOTOGRAPH BY ARTHUR WHITTINGTON

Richardson once studied art to please his father. Now it is a passion. Modest about his acting, he does not understate his painting ability

Ralph Richardson, the "ordinary" star

by IAN BEVAN

Nobody thought he would reach stardom. He was shy and plain, and his nose was too large. Beginning a two-part profile of Britain's least understood major stage and screen actor

"I'VE PUT ON MAKE-UP SO MANY TIMES," Sir Ralph Richardson said in a public speech recently, "that I'm afraid, one day, when I wipe it off, there'll be nothing left underneath." His audience laughed at what they thought was a carefully contrived witticism; but he was merely voicing a recurrent fear of stage people—that their own lives are likely to become as artificial as plays, and their personalities as false as those they assume each night behind the footlights.

This is just what happens in many cases; but Richardson has gone to greater lengths than most to remain a normal human being as well as an actor. To the astonishment of fellow professionals, he has largely succeeded. "He's so damned ordinary," one of them was heard to remark in a Shaftesbury Avenue bar.

An important part of his technique has been to divorce his private life from his work. So completely are they separated that he rarely goes to a cinema or theatre as a member of the audience. When his job is finished, he comes out of the stage door, walks quickly to his car and drives himself rapidly away into what might well be another world. Even the film studios, where the most intimate domestic revelations are casually accepted as good publicity, have been restricted in his case to issuing soberly worded biographies which describe him as "shy," "retiring," "reserved."

As a result, Richardson remains the least publicised, least understood major star of our time. Yet his box office appeal keeps growing along with his artistic stature. The critics rank him among the three best actors of the British stage; the cinema queues for revivals of his old films are almost as long as those for his new ones.

Because he does not customarily address other actors by their first names unless he knows them well, nor call actresses "darling" when he meets them in public, members of this exhibitionist profession sometimes refer to him as "dull," "pompous," "high-hat." But perhaps a fairer comment came from the assistant in a pipe shop near Leicester Square, where he is a regular customer. She said of him: "He always waits his turn."

Richardson is a man with no illusions about his own importance or ability. With the exception of his painting (which has become an increasing passion with him in recent years) he deliberately understates his qualifications. "I'm not a very good actor," he told an acquaintance the other day. "Just a hard-working one, who's had a lot more praise than he deserves."

The praise has included words such as "brilliant," "superb," "genius," but it would never occur to Richardson that he should therefore try to be served ahead of his turn in a shop. To

describe him as "modest" does not take account of the deliberate self-analysis which has made him well aware that there are many more important people in the world than theatrical stars. If he needed proof of this, an incident which occurred in a provincial city during the war would have sufficed. Richardson had gone there to make location shots, and one evening he returned with a fellow actor to their hotel. The manager asked him if everything was all right. Richardson mentioned that the night before he had been refused a bottle of wine.

"That's ridiculous," said the manager. "Of course there's wine. While you're here, you shall have everything you want. I'll come up to see that your suite is comfortable."

The three men got into the lift. Richardson, who had not been filming, was in ordinary clothes, but the other actor wore make-up. The man in make-up got out at the floor below Richardson, and the manager said, "Do you know who that is? It's Richardson, the actor."

They proceeded to the suite, where the manager instructed the floor waiter that this important guest must have everything he wanted. "I lived on the fat of the land," Richardson has since related, "but I've often wondered who on earth the manager thought I was."

No Detail Too Small

He can appreciate physical comfort, for his parents were not well off and he has always had to earn his own living. He started doing so, in the autumn of 1921, as what he calls "the lowest form of animal life." This meant being the second assistant stage manager in a Shakespearian touring company. Thirty years have brought him a knighthood, world-wide critical acclaim, a Rolls-Royce, and all the other honours and luxuries of stardom, but none of these was won easily. Nothing could be more accurate than his description of himself as "hard-working."

His painstaking thoroughness has earned him a formidable reputation in the profession. No detail is too small, no effort too much if it will improve the final result. On location in Ceylon for his latest film, *An Outcast of the Islands*, director Carol Reed thought to save him trouble one uncomfortably hot day by saying the camera would be focused on him only from the chest up, and therefore he need not bother changing into his full costume as a merchant sea-captain. Richardson appeared for the final shot in the correct clothes even down to boots. "If I had on my own shoes," he explained, "it might show in the shot from the way I stood."

Opposition By Father

Richardson did not start life equipped with the physical graces of an Olivier, the emotional fireworks of a Laughton, or the instinctive genius of a Gielgud. All that could be said in his favour was that he had a voice with a wide range, and an infinite capacity for hard work. He was shy, he was plain, his nose was obstreperously large. But he was determined. Nobody's pupil and nobody's protégé, he can, with justice, be described as "a self-made star."

Although he had no family connections with the theatre on either side, it was his ambition from as early as he can remember to become an actor. This his father bitterly opposed. Arthur Richardson was a well-known water-colourist who wanted Ralph to follow in his footsteps. Oddly enough, he had defied his own father to take up an artistic career. The Richardsons were an old Quaker family, who had been associated for centuries with the leather industry. Older members of the family wanted Ralph to go back to the tannery; his father wanted him to take up painting. Ralph did not want to do either.

In a muddled education, which has been his constant regret, one of the few solid things was his love for Shakespeare, which gave him an intimate knowledge of all the plays by his early teens. He left school at fifteen and got a job in an office at Brighton, where he lived, filling inkwells. Then his grandfather died and left him £500. Filial duty made him spend some of it on an art course, but the call of the theatre was strong. He combined both interests by buying an apprenticeship with a local, semi-professional theatrical group—as a scene painter.

He willingly took on any backstage jobs, and he soon became general factotum for the company, which was operating in a church hall without proper facilities. Richardson worked the lights and sound effects crouched underneath the stage, following the script by candlelight. If the candle went out he missed his cues, and the actors would stamp angrily on the floor.

"Never Try To Act"

The manager grew used to Richardson pestering him for small parts and, in the interests of economy as much as anything else, walk-ons and one-line bits were flung his way, but everybody in the company was unanimous that Richardson could not act and would not be able to learn. An elderly actor took him aside one night and said: "My boy, if you can sell papers, do it. But never, never try to act." Richardson, fired by some inner conviction, kept on trying.

In December, 1920, just after his eighteenth birthday, his persistence was rewarded with a couple of small parts in *Macbeth*, and a local newspaper said: "Ralph Richardson, a well-graced actor, played with great distinction." It was his first notice, and today he is still grateful to the unknown critic who favoured him then with ten words.

When Charles Doran's Shakespearian company toured south coast resorts the following year, Richardson wrote requesting an audition and was told to come to the Devonshire Park Theatre at Eastbourne after the Saturday matinée. He was ushered into Doran's dressing-room and asked to recite something, so he started on "Friends, Romans, countrymen. . . ." The star was busy changing from Shylock's gaberdine into his own street clothes, which were strewn about the room in confusion. People were coming in and out, the dresser was packing a costume basket, Doran was in a great hurry. It was certainly not the atmosphere to encourage dramatic eloquence, but the youth persisted. (No one could say he was exactly "shy" or "dull" on that occasion.)

Won On His Own Merits

Half-way through the speech, Doran raised his hands and cried: "Stop! Stop!" Richardson faltered. "Wasn't it all right, sir?" he asked, almost in tears. "Wasn't I any good?"

"Oh, yes, it was all right," said Doran, "but you're standing on my trousers."

So ended his first audition, but it turned out quite favourably. While he was putting on his trousers, Doran offered him a job. Richardson cycled home to Brighton in a rich glow of excitement. He had won this chance without anybody's help or personal introduction; won it on his own merits. Perhaps now his father would admit there was some chance of his making a future on the stage. But his father never did.

Richardson worked so hard with Doran that in February, 1923, when the company played *Julius Caesar* at the Dublin Gaiety, he was entrusted with the part of Mark Antony. This time there was a large and attentive audience for his "Friends, Romans, countrymen. . . ." Next day the *Irish Times* was enthusiastic. But Doran was not the man to let a young actor think one good notice made a star. When Richardson asked him for a rise from £3 to £3 10s. a week, he said: "Who the hell do you think you are? Another Matheson Lang?" Soon after that they parted company, and Richardson joined an English group playing light romantic comedies at the Dublin Abbey Theatre. His modesty has never blinded him to what he thinks is a fair return for his services.

His chief regret at leaving Doran was that it also meant leaving a young actress in the company named Muriel Hewitt, with whom he had fallen very much in love. The following year he played in several English provincial tours and, when one of these reached Brighton, he took a

Making *An Outcast of the Islands* in Ceylon.

Vivien Leigh with Richardson in the film *Anna Karenina*. Laurence Olivier, Vivien's husband, is one of Richardson's best friends

Carol Reed (left) plans, Richardson waits patiently. He refused Reed's offer to spare him discomfort

morning train up to London and married Miss Hewitt, who was then in a West End show. He had to catch a train back to Brighton straight after the ceremony, and their honeymoon was deferred until they both joined Barry Jackson's touring company in *The Farmer's Wife*.

When this tour ended, they applied for jobs with Jackson's Birmingham Repertory Company —then at the height of its fame as a "nursery of stars"—and were both accepted. Richardson hoped that rep. would mean a chance to play hard parts, preferably in the classics. His face fell when the first rôle he was given was Dick Whittington in a Christmas play; but the hard parts followed, and he learned a lot.

He worked for Jackson almost continuously during the next four years, yet every time he signed a fresh contract he questioned Jackson's motives. "Are you sure you're not taking me just to please my wife?" he would ask. Muriel Hewitt was a beautiful and talented actress and Richardson could never get over the suspicion (almost amounting to an inferiority complex) that he was being signed up merely as "Muriel Hewitt's husband." Jackson truthfully denied it. Although he has a great reputation as a talent spotter, these days he is the first to admit that he never thought Richardson would become a star.

Critic Ignored Him

During his initial Birmingham season, Richardson had his first chance of a part in London. This was in a Sunday night production of *Oedipus at Colonus*. He was so excited at the prospect of playing in London, to an audience which would include all the leading critics, that he spent far more than his professional fee in going to London for rehearsals and returning to Birmingham for his regular performances. When *Oedipus* was reviewed in *The Times*, eight of the nine principals were mentioned by name. Richardson was the anonymous ninth.

A better break came a few months later when Jackson put him into his London production of *Yellow Sands*, by Eden and Adelaide Phillpotts, at the Haymarket. With Cedric Hardwicke, Muriel Hewitt and Frank Vosper in the leads, it ran for fifteen months and gave Richardson his first taste of West End success. His own part did not amount to much, but the experience of being in a hit, with a star like Hardwicke, was invaluable. Years later, when he was asked what he thought provided the best training for an actor, he said: "Playing a small part in a long run, with good actors to watch. A long run teaches you control and cures you of amateurishness. You learn to be always on the mark."

Olivier's Friendship

After *Yellow Sands*, he was in a series of plays that Jackson produced at the Royal Court Theatre. Here, sharing his comparative obscurity in a company which included such luminaries as Hardwicke, Edith Evans and Gwen Ffrangcon-Davies, was a handsome juvenile named Laurence Olivier. They had met before, but during this season they became firm friends. Olivier, with rather better parts, had more critical success than Richardson. But the two young men were in no sense rivals. Their looks and temperaments destined them for very different parts on stage, which is probably why their off-stage friendship has survived so long in the stormy world of theatrical emotions. Of their relationship, Richardson has said: "It is one of the most important things in my life. Olivier has helped me greatly at critical periods."

Not the least of Richardson's assets is his talent for friendship, and his friends have played a significant part in shaping his career. When he was first invited by Lilian Baylis to join the Old Vic company in 1930, he accepted with some personal misgivings, for he was to share the leading parts with John Gielgud who, though his junior in years, was then very much his senior in experience and public esteem. He felt there might be something of a scuffle between them. Instead, he found a new friendship, and when Gielgud subsequently branched out as a director, he aided Richardson by nominating him for leading rôles.

The Old Vic in those days was fine for experience, magnificent for prestige, but woeful for finance. The end of the season, in May, 1931, found Richardson very hard up, but this time his friend, Cedric Hardwicke, came to the rescue by getting him an extra's job in the film *Dreyfus*. It was Richardson's first film work, and did not inspire him with the urge for more.

In August of that year, he rejoined Sir Barry Jackson for the Malvern Festival, which improved his growing reputation with the critics but did little to impress his bank manager. It also marked the beginning of another important friendship. He was standing in the main street at Malvern one afternoon, admiring a magnificent new Daimler parked by the kerb. Cars have always been a great passion with him, and his eyes must have betrayed his lust for this shiny monster, because its owner came out and invited him to go for a drive. It was J. B. Priestley, flushed with the profits of *The Good Companions*.

Wanted To Talk Cars

The actor sat alongside his host as they drove through the Malvern Hills. "Do you prefer these sleeve-valve jobs?" he ventured. Priestley, to whom a car is merely something with four wheels, said he didn't know anything about sleeve valves, but Richardson desperately wanted to talk cars. He searched for another opening, and his eyes settled on some highly decorative mother-of-pearl inlays on the dashboard. "You know, Mr. Priestley," he said, "I think the car would look better without those inlays."

"Young man," said Priestley, "you've been invited out to enjoy yourself, and not to pass comments."

"It was perfect," says Richardson, recalling the incident, "and I've loved him ever since." The two men are remarkably similar in temperament, meet frequently (when they talk about books rather than cars, and, as Priestley has phrased it, "kipper each other in pipe smoke"), and Richardson's next stage part will probably be in a play to which Priestley has just put the finishing touches.

From Malvern, Richardson went back to the Old Vic, then to another Malvern Festival and a couple of modern plays in the West End. He took a part in C. B. Cochran's *Wild Decembers*, which flopped and left him hard up and unemployed. Hardwicke came to his rescue again and gained Richardson a part in a horror film called *The Ghoul*. Then Gielgud picked him for the lead in Somerset Maugham's last play, *Sheppey*. Although the play did not run, it was a personal triumph for Richardson.

By 1938, solid commercial success was well within his grasp, but Richardson deliberately tried an experiment which went close to wrecking his career. He and Olivier had long wanted to do *Othello*, with Richardson as the Moor and Olivier as Iago. Tyrone Guthrie gave them their chance. The result was almost total failure.

"It was one of the worst *Othellos* in recorded history," Guthrie has since admitted. "Somehow the styles of Richardson and Olivier didn't mix, and I did a crashing bad production."

Joined Fleet Air Arm

Richardson was acutely disappointed. With the exception of Falstaff, he has never since attempted any of the great Shakespearian characters. "I would love to try *Macbeth*," he confessed the other day, "but I don't know whether I would dare. Perhaps those rôles are outside my range. The deep, rich notes in the score may not be written for me."

But for two films which he had made for Korda some months previously — *The Four Feathers* and *Q Planes*—Richardson would have ended the year in low spirits. And the year was 1939. Within a few days of war being declared, he had volunteered for the Fleet Air Arm and had been commissioned.

The career he had been building so carefully had reached a crisis. Leaving the stage and studios at this point might mean that stardom would never be his; but Richardson did not hesitate, and a new life began for the man rather than the actor. Often he had wondered whether the man still survived beneath the grease paint. This was the time to find out.

NEXT WEEK: Ralph Richardson, the man behind the grease paint

It was the first time she had held him close. He was sobbing hysterically and shaking with fear

Fifth Child

World project story from U.S.A.

by HOWARD MAIER

ILLUSTRATED BY NARRAWAY

This was his first home. But other children had lived here, too—he knew that now. And not one had stayed

IN THE BRIGHT SUNLIGHT ROLAND worked his way carefully down the stream. With the trousers of his denim overalls rolled high above his knees, he placed his bare feet with extreme caution in each familiar pool. The silt bottom swirled as a crawfish fled before his approach. The boy disdained to give it a second glance: crawfish went two for a penny; frogs brought a nickel apiece at the hotels up on the lake.

Roland became motionless, tense: a big fellow, worth at least seven cents, sat staring at him from the edge of the bank, white throat pulsing. His hand darted out. The frog hit the water with a plop. Swift and sure, the seven-year-old boy's hand descended, and he let go a little whistle of triumph as he came up with the squirming frog. Opening the wire cage slung by a rope from his bare shoulder, he popped the big fellow in.

He must have had at least two dozen, maybe a few more. He would probably get a dozen more before the bridge. He hoped so, because once you came to the bridge, the deep, shadowy part beneath it, you took nothing. Under the bridge was his place; the rock with the curve that just fitted his back, his throne; all that lived and breathed and swam, minnow, crawfish, frog or water bug, went unmolested there. They were his subjects, free to come and go as they would.

He had at least three dozen frogs by the time he came to the bridge. He lowered the wire trap into the deep pool and took his place on the throne rock, keeping his eyes squinted until they became accustomed to the gloom.

It was a strange sort of light, boxed in by two bands of bright sun, and even the smell was different from anything he had ever smelt before, dank and old-like, and the water, icy here in the perpetual shade, had its own peculiar song as it swept down between the moss-grown rocks to be sucked in between the two big ones that looked like the horses of knights in armour, and finally to tumble out into the sunlight again.

As he sat there in the dimness, staring at his armoured horses, he thought: Roland, that's a knight's name. The Smith didn't count, because that was the last name they gave all Welfare children when they didn't know who their parents were. At least, that was what Auntynelly had told him, and Auntynelly never told anything but the truth.

Ol' King, the biggest frog in Ogden County, came up from under the bank across the narrow stream and hopped up on his stump of a log. Roland expertly tossed a pebble at him. The big frog lunged at it, then dropped it from his pink mouth and just sat there, staring across at the boy with unblinking eyes. The minutes went by. Suddenly there was a plop of water and the giant frog was gone. Then Roland heard it: the sound of footsteps on the bridge above his head. There were two sets of them. The steps came out to the centre of the bridge and suddenly stopped. The images of two men wavered in the water; they were leaning on the rail talking, talking about Auntynelly. Roland held his breath and listened.

"I tell you, Sam, it ain't natural for a woman to be postmaster, especially if she's unfriendly like Nelly Craven," the first man was saying. "A man likes to go into his post office and even if he ain't got no mail coming to him, he likes to sort of stand around and pass the time of day. Ain't as if the post office didn't belong to him; he pays taxes."

THE man called Sam laughed. "Nelly ain't unfriendly; it's just her way. She's had it tough, and it's clammed her up. Lose a husband in one war and then your only boy in the next and you'd be a mite sour, too."

One image in the water shook its head. "And these Welfare kids. Every spring she goes and gets one out of the County Home and every fall she returns it. That ain't natural, Sam, and you know it ain't. What she want to keep returning them for?"

Again the one called Sam laughed. "Maybe she's figuring on trying them all out until she finds one fit to keep."

Roland let the breath go out of him and gripped the rough stone until his hand hurt, and waited.

"Like hell she is," the second one answered. "She keeps those kids selling cigarettes and canned soup and I don't know what-all to the summer people. And that's another thing. I don't know if it's legal to split up a post office, even if it's in your own home, so it's half store and half post office. She just works the kids. Maybe that's why she has to get a different one every summer."

"Well, it ain't none of my affair, and what ain't my affair I don't go sticking my nose into."

"Like this kid she's got this year. Every day he's up at the lake selling bait round the hotels. Bet he never sees a red cent of the money. Nelly Craven is tighter than the skin on an orange."

"To hell with it. I'm going to get my mail. You coming, or you going to stand there all day grousing about Nelly Craven?"

The images in the water broke and disappeared. The men's footsteps died away. Roland stared down at his face in the pool, forcing his dark eyes wide apart, fighting against the inexplicable tears that somehow had flooded up right behind his lids. Ol' King took possession of his stump once again. Roland lifted his head and stared across at him. Ol' King was no good and his rock throne was no good; and the knight's horses were nothing but dirty old rocks. This last place, the only place he had ever found, was no good any more. He got to his feet and started clambering up the bank. Then, remembering his trap, he went back and retrieved it.

He went up the back path very slowly. The kitchen door was open. Auntynelly sat in the

Continued on page 22

JOHN BULL September 29 1951

Hush-hush builders of the jet age Navy

by ERIC BENNETT

On drawing boards, and in secret workshops, the boffins decide the shape of the Navy five years hence. When they go to sea, they are the first to test their own inventions

On a well-guarded island, Dr. Hugh Powell photographs underwater explosions in colour. He is here bending over the camera, which records the reflections in an underwater mirror

THE MAN WAS SQUATTING on his haunches a few inches above the surface of the waters of Loch Long, and he was moving steadily forward without getting his feet wet. Sailors rubbed their eyes, cleaned their binoculars and made hasty new resolutions as they watched his progress. But the explanation of the phenomenon was simple. Leslie Bell, a member of the Royal Corps of Naval Constructors, was clinging to the periscope bracket of a submerged submarine.

A few minutes before, Bell had been inside the submarine, which was taking part in a trial exercise against surface craft. The commander called him over to the periscope and invited him to look through the viewer. "See that ship?" he asked.

"Perfectly," answered Bell.

"Well, you are looking at two ships. Which one am I supposed to torpedo?"

The periscope was wobbling so badly while the submarine was cruising that the images of two ships had been superimposed one on the other. Bell volunteered to travel on top to find out what was happening. So the submarine surfaced, he took his perch on the bracket, and the sub went down again. "The commander's dive was beautifully accurate—he did not even give me a ducking," says Bell with a grin. In his unique ride along the loch, Bell discovered the cause of the vibration, and subsequent adjustment corrected the fault.

Navy's Hazards Shared

That was just another incident in the life of a naval architect. For the small, select Royal Corps of Naval Constructors is responsible not only for the design of all Britain's warships, but for superintending their construction and making repairs and alterations to ships in service. Members of the Corps are not merely backroom boffins tied to drawing boards; they share the life and hazards of the Royal Navy.

But at this critical period of history, when new weapons, new aircraft, new apparatus and techniques are demanding a complete revision of traditional warship design, the office work of the constructors is more important than ever. The designs they are creating today will decide the shape of the British Navy in five years' time and for twenty years after.

The British Construction Corps is unique, because its 150 members are civilians. Only when they go to sea do they wear uniform and carry naval rank. Leslie Bell, who comes from Portsmouth, was a dockyard apprentice who won his way to the Royal Naval Engineering College at Keyham, and thence to the three-year course at the Royal Naval College, Greenwich. Other members have been recruited from midshipmen at Keyham, from universities, and from private shipyards.

Every warship, from the smallest M.T.B. to the heaviest battleship or aircraft carrier, is designed by the Corps under the direction of the Director of Naval Construction, V. G. Shepheard, whose salary is £3,000 a year. And whether the vessel is built in one of H.M. Dockyards or in a private shipyard, a member of the Corps is responsible for its progress.

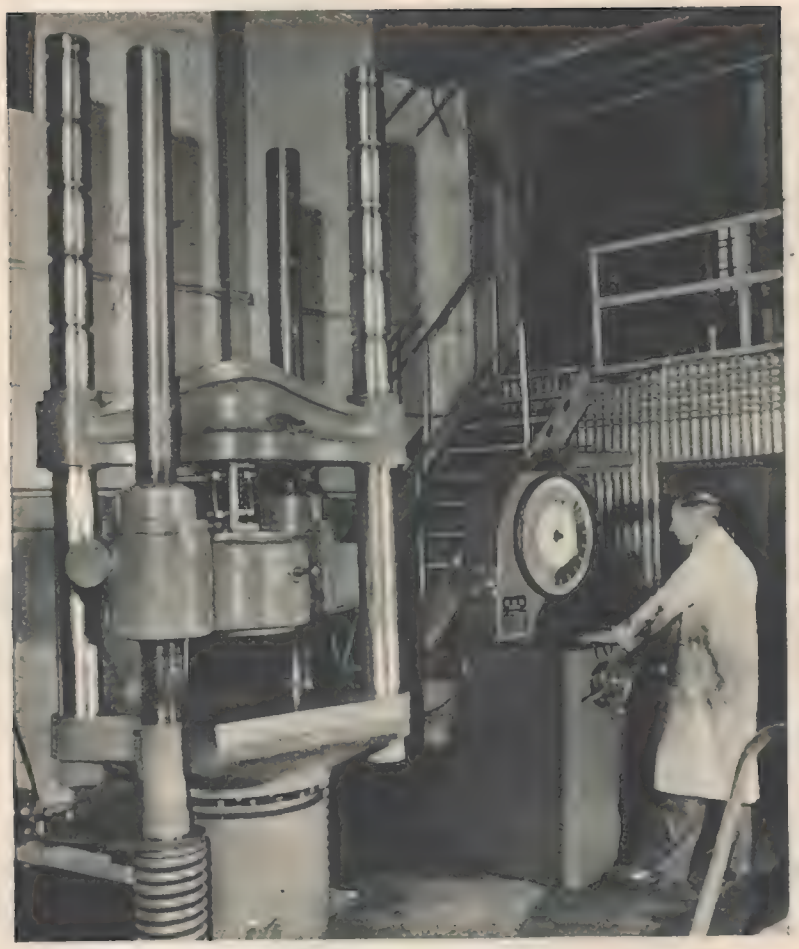
Since it takes about a year to design a ship and another two to four to build it, every precaution has to be taken to see that the new vessel is not obsolescent before it is launched. It is certain that the radar and gunnery devices planned for a ship of today will have been improved and altered considerably within four years. The U.S. Navy deals with this problem by "freezing" the design of a ship as soon as it is approved and rushing its construction at high speed, allowing no alterations or modifications. The British method is to delay the "freezing point" until the last possible moment. The Director of Naval Construction keeps some spare space and weight up his sleeve, so that while the ship is being built new and improved apparatus can be installed.

Last-minute Alterations

An example of this adaptability occurred recently in H.M.S. *Eagle*, Britain's newest aircraft carrier. She was almost completed when the principal shipping overseer from the Corps ordered new equipment to handle the Supermarine Attacker jet fighters which have just been built for the Navy. Because of the Construction Corps's fluid policy, the *Eagle* will be able to go directly into commission this year with a squadron of these single-seater fighters capable of speeds greater than 550 m.p.h.

It is not a simple task to cope with last-minute alterations of equipment. One extra ton of radar equipment at the masthead means five extra tons of weight on the ship, and all the time the naval architects are trying to maintain a balance between speed, endurance and fuel capacity, weight of armament, accuracy of gunfire, armoured protection and manoeuvrability.

Trying to get a gallon into a pint pot is child's play compared with the business of getting all the gadgets into a modern warship *and*



Stretching steel till it snaps. A three-inch slab took a strain of forty-five tons before its waist began to narrow

A steel plate is fitted in this machine. One end is heated, the other frozen. A hammer blow reveals the maximum heat it can stand

leaving enough room for the crew. Officers and men of the Navy frequently curse naval architects for the lack of living space at sea. The commander of the light fleet carrier *Ocean*, then serving in the Mediterranean, once allocated the worst cabin in the ship to a visiting constructor. After one night the constructor asked for another cabin. "It's like the Black Hole of Calcutta," he complained. "Far too hot and stuffy. I couldn't sleep a wink." The commander grinned. "You chaps built it," he answered, "so you can stay in it. Now you know how we have to live."

The official retort of the constructors is that they could build luxury ships for a peacetime fleet, but that in war the comfort of the sailor depends upon the efficiency of his radar, the accuracy of the gunnery and the speed and range of the ship. The weight and bulk of equipment, engines and fuel tanks must take precedence over spacious messdecks.

The "One Shot" Technique

Jet bombers are now so fast that fighters launched from a carrier are being planned for the "one shot" technique. In an air battle at 600 m.p.h. it is possible for a fighter to get in only one burst of fire at the oncoming target before turning to re-engage. But, while the fighter turns, the bombers have moved on some fifty miles, and the attacker may never come within range again. So everything is being done to make certain that the first shot is effective.

This means more radar equipment and a two-man crew—which means extra weight. The new naval fighter, which is still on the drawing-board, will probably weigh twice as much as the Seafire. All that means extra strain on flight decks and arrester gears—and another problem to be solved by the naval architects.

By far the most revolutionary designs of the future will be seen in the ships from which guided missiles are fired. For firing shells from guns the ships has to be as steady as possible: for guided projectiles this is not necessary. There are further peculiarities to be considered. The missiles are heavier than the weapons which fire them. And whereas a shell from a gun takes the blast away from the ship, the rocket or jet sends the blast back into the ship.

One chief constructor had a fiery memorandum to this effect when he was present on duty at the first bombardment by rocket vessels. The back blast from the rockets built up so much that observers in other ships thought that the rocket ships and crews had been wiped out in flames. "In fact," he says, "all we suffered was loss of eyebrows and singed hair."

In First Tank Tested

It was the same constructor who risked ordeal by water in the development of amphibious warfare. The Corps was actively concerned in the creation of amphibious tanks for the invasion of Normandy. But when the final tank was approved there was still some doubt about the correct angle of the ramp along which it was to be launched from the landing craft. If the ramp were too steep the nose of the tank might plunge straight into the sea and never rise; if the angle were too shallow the back end of the tank might drop suddenly off, causing the whole machine to sink.

Watched by Field Marshals Alexander and Montgomery and a group of high-ranking officers and technical experts, the constructor took his place with the crew in the first tank to be tried out, off Hayling Island. They all knew that it might mean a sudden plunge and death by drowning, or perhaps only an unpleasant wetting. But their technical skill was equal to their courage. The ramp angle was perfect: the tank rolled gently down into the sea and chugged off towards the shore.

Landing craft design and construction was another of the Corps's wartime jobs. Members were not satisfied with the results until they had been given a full-scale dress rehearsal. For this, raiding parties were sent over to the Normandy coast to make detailed surveys of the German beach obstructions and defences. Replicas of these were manufactured here and put up on a deserted stretch of the south coast. One fine day the constructors set sail from Portsmouth and spent hour after hour driving landing craft ashore over and through the beach obstacles. Not until they had given proof of their ability to invade Britain were the craft approved for their ultimate task of landing our invasion of Europe.

Wartime service took constructors to every theatre where the Royal Navy was engaged, and they were often called on to supervise emergency repair and salvage operations. In peacetime they share the risks with the men for whom they design ships. Members of the Corps were lost in the disasters that overtook the submarines *Thetis* and *Truculent*.

While some of the constructors are at sea or working in the dockyards, and others are busy on plans at the Admiralty or in the design section at Bath, a third group is engaged on research. At the Admiralty Experiment Works at Haslar, near Portsmouth, ship and submarine models are tested in a tank. The results of the measurements giving the resistance of the models when towed in water at varying speeds enable naval architects to perfect hull design.

Whale Shapes Studied

But the bright boys of Haslar do not stop short at these orthodox tests. For many years the superintendent of the works, R. W. L. Gawn, has been studying the shape of fish and marine animals to see if they can help the ship designer.

After accurate observations had been made by a British scientific expedition to the Antarctic, it was found that blue whales could maintain a speed of 14½ knots for more than two hours, and could make a ten-minute burst at 20 knots. Gawn calculated that a blue whale weighing a normal 120 tons would have to develop 520 horsepower to move at 20 knots, and showed that a well-designed rigid body such as a submarine hull could obtain the same speed with less power.

Then it was suggested that the porpoise, which has been credited with a speed of 25 knots, might provide naval architects with the ideal form. A naval expedition was sent

Continued on page 32

Hornblower saved his creator

by PETER ALTON

Fiction's fighting sailor now gets tit-for-tat from C. S. Forester—a new and exciting lease on life

SOME YEARS AGO, when author C. S. Forester was stricken incurably with arteriosclerosis, a disease which made him a pain-racked cripple, he saw the world tumbling down around him. He could never again walk for more than a few minutes at a time, and he knew his expectancy of life might be shortened by years. Under like circumstances, many another man has surrendered to fear, self-pity and stagnation. But not Forester.

"It was Hornblower who saved me," he says today. "He saved me from a great deal of unhappiness. Writing about him gave me something to *do*."

This was probably the only time on record that a romantic, fictional hero had stepped out of the printed page to rescue his author, and Forester was properly grateful. Although he had written his hero through a long life of naval adventures, into the peerage, and finally into the last days of his old age—that short story is to remain unpublished until the author's own death—Forester determined to repay Hornblower in kind by giving him, too, a new lease on life.

Thus, *Lieutenant Hornblower*, the new serial which begins in JOHN BULL next week, finds our hero in the year 1802 in his early twenties, with many exciting years before him.

Looks A Business Man

Hornblower's originator, slender, brown-eyed and balding, looks more like a successful businessman than a creator of rugged adventure. "More people have seen me without my trousers than without my spectacles," he says whimsically. By this, he means he removes his eyeglasses only to go to sleep.

Cecil Scott Forester was born in Cairo, Egypt, in 1899, when his father was stationed there as a government official. Later, as an infantryman in his teens, he fought in the 1914 war. Then, like Somerset Maugham before him, he studied medicine before turning to the pen. His years at Guy's Hospital, an acquaintance once said, "were chiefly distinguished for his riotousness." He left without collecting a medical degree after failing in an examination to identify any of the bones of the human body.

When Forester turned to fiction as a career, he wrote two quickly done historical novels which were so unmistakably bad he prefers not to mention them now, but followed them with *Payment Deferred*. This was successful first as a book, then as a play starring Charles Laughton, and still later as a Hollywood film.

At twenty-seven, an age when most authors are still trying to find their feet, Forester was solidly established as a writer. When, in 1932, he was offered a Hollywood contract, he grabbed it quickly. Each year thereafter until 1939 he continued to spend thirteen weeks in the American film capital. Other writers often damn Hollywood outright as a kind of hell that seems to rob them of all inspiration and freedom. Forester merely says: "Every week there gave me a month of freedom somewhere else." He was an honest craftsman who liked to live in comfort and was able to indulge the whim.

In September, 1939, Forester's services were requested by the Ministry of Information. He gave them. Later in the war he sailed with the Royal Navy to collect material for *The Ship*, a book which some critics praised as the best of the war. He resolved to do a similar job about the United States Navy and sailed to the frigid Behring Sea. During this voyage the illness which bedevils him today struck hard.

Exhausting Ninety Minutes

"Doctors told me," he says, "that I would have to lead the life of a cabbage." It was then Hornblower came to the rescue. Now, Forester lives in Berkeley, California, with his wife—who comes from Sydenham, near London—and two sons. He lives there because the dry and invigorating climate is good for what ails him and Britain's damper season is not. Although he seldom puts in more than an hour and a half of work a day, during the two-thirds of each year he is actively engaged in writing, the effort exhausts him. By the time he has filled two foolscap sheets of paper—by hand and in pen and ink—he is too tired to go on. He loses weight day by day and month by month. Then comes his twelve weeks of complete relaxation when he eats, sleeps and regains weight.

Even this hour-plus a day schedule earns him a five-figure income, which has been variously estimated at anything between £15,000 and £50,000 a year. Hornblower, who will probably take his place alongside Sherlock Holmes as a British literary immortal, is responsible for a large share of these earnings.

Yet Forester gets little joy out of the actual process of writing. Someone once asked him how he felt about producing a book. "The one thought is to get the damned thing over, to get it out of the way," he replied.

On the other hand, the plotting and planning of a novel delights him. "I get an idea and let it soak in my subconscious," he told an interviewer. "It's as if you dropped a piece of timber, with a rope around it, into the sea. Every now and then you pull it up and each time you find it has acquired more barnacles. That's what happens with an idea for a novel."

Unlike the writers who believe in using the backgrounds they themselves know best, Forester prefers to create his own world. When, for example, he wrote his first Hornblower story, with its detailed description of naval life a century and a half ago, he owed his exact knowledge of that era of seafaring to a handbook for master mariners dated 1798. He had picked the volume up in a second-hand shop in Portsmouth and on the factual planks he found there he built the rest from his inspired imaginings.

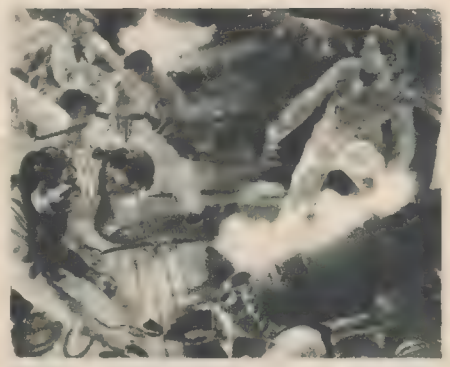
Hornblower fans — who include Winston Churchill and Lord Louis Mountbatten—will be delighted that C. S. Forester's new story, *Lieutenant Hornblower*, traces the earlier adventures of their hero. Hundreds wrote to the author asking about this stage in the fighting sailor's career.

"How," they wanted to know, "did Hornblower get his first command?" They knew Hornblower as an introspective sailor, a little unsure of himself, prone to seasickness, a stumbling but most likeable man who was willing to take great risks for great rewards. They knew, too—because Forester's background painting had been so vivid—that advancement in the Royal Navy early in the nineteenth century came largely through privilege and family connections. Hornblower was equipped with neither.

Thus, the question of Hornblower's advancement from junior lieutenant on the 74-gun ship of the line, *Renown*, to ship's captain gave Forester an interesting problem in plotting. *Lieutenant Hornblower* is his fascinating and thrilling answer. THE END

C. S. Forester — a five-figure income and much of it out of Hornblower's adventures

NEW, UNPUBLISHED



William Little's fine illustrations in JOHN BULL will add to the thrills of *Lieutenant Hornblower*, the new full-length novel by C. S. Forester, as yet unpublished in Great Britain. This great new JOHN BULL serial . . .

starts next week

The searchlight illuminated the bustle and confusion. Nap seated himself in the bosun's chair

The trial

MAJOR ERIC THOSEBY was stabbed to death in his room at the Family Hotel, Euston. Accused of the crime was Victoria Lamartine, a French employee of the hotel. The motive, said the Crown, was revenge: Thoseby was the father of her dead, illegitimate child.

M. Sainte, the French owner of the hotel, paid for Victoria's defence—a defence so half-hearted that Victoria promptly changed her lawyers. She instructed the firm of Markby, Wragg and Rumbold, who briefed Hargest Macrea, one of the most formidable barristers in London, to plead her case.

Her case was that she had not murdered Thoseby; that she had been seeking him to find information about the real father of her child—a Lieutenant Julian Wells who had been a British agent in France under Thoseby's command during the war. After a Gestapo raid on the farm where she was living and Wells was hiding, Wells had disappeared.

It was to find evidence of the shadowy Wells that Nap Rumbold, son of the senior partner in the legal firm, went to France. There he was assisted by Madame Delboise, a comely young woman who worked for the Sûreté. Her interest in the case centred on one of the hotel guests—a Mrs. Roper, who was connected with a French smuggling organization.

Angus McCann, a friend of Nap's who had interested himself in the case, was the first to come up against Mrs. Roper's organization. The tip that Mrs. Roper was not all she seemed had been passed to him by a friend at Scotland Yard, Inspector Hazlerigg.

Nap's investigations in France did not get very far before he, too, came up against the organization. There was one preliminary warning—which he ignored—and then the gang struck. Nap was taken for a ride—a ride that was to have ended with his weighted body in the River Loire. Choosing his moment, Nap escaped by leaping in the river. But he could not escape the knife thrust as he dived.

FINAL INSTALMENT

Wednesday

NAP came to the surface very slowly. It took a long time and there did not seem to be any particular urgency about it. When he broke surface and started to breathe, things started to hurt.

There was one pain in his lungs, from holding his breath. And there was another pain along the side and the top of his stomach, where the knife had gone into him—how deeply he did not know, and did not at the moment care to guess.

He could hear voices shouting along the north bank of the river, the bank he had just left, and he could see lights blinking. The current seemed, however, to be carrying him more quickly than the voices and the lights could move, and this seemed so desirable that Nap set his teeth and did nothing. The merest movement of his legs was enough to keep him afloat, so long as the air was still in his clothes. It was bitterly cold.

Up above, in the black sky, the stars looked down frostily, and by watching them swing he knew that the river was taking a wide loop, first through one quadrant, then, slowly, back through another. He forced himself to think. At the outer point of the river's curve, the current would under-eat the edge, and the banks would be steep and difficult to climb. When the current swung away again, it ought to leave a

# of Victoria Lamartine

by MICHAEL GILBERT

At midnight on Wednesday, Macrea had the truth. He knew who had done the murder and why and when and how. He didn't know if the information had come soon enough

shelf, by which a tired man might perhaps crawl out.

Nap continued to watch the stars. He had swung right round once. Now he was beginning to swing again. He counted up to ten, and then started to kick, with his legs, against the current.

The pain in his side became acute. He turned on to his front and tried to use his arms. It was almost as bad, but the movement, slight as it was, seemed to be gaining him ground. The main channel was behind him. He persevered in these tired, frog-like movements until suddenly his knees struck against something which felt like sand.

There was very little current. He crawled, on all fours, into a bank of rushes and got very slowly to his feet. He put his hand gently to his stomach and felt, across the water-sodden shirt front, a patch of something stickier than water. It was blood, but it did not seem to be coming very quickly, which was encouraging.

He took a handkerchief from his coat pocket, squeezed it dry, folded it into a pad and slipped it in underneath where the front of his shirt ran into the top of his trousers. When he had tightened his belt on top of it things felt a bit firmer. It was the best he could do for the moment. He started to walk forward. It wasn't easy. First the rushes, then loose shingle, and finally a thicket of dwarf alders. The alders were particularly trying for a tired man. Every branch had to be pushed aside by hand, and the roots were alive in their venomous intricacy. He was just thinking that it could not go on for ever when the ground started to fall away: the rushes reappeared and he found himself looking at the river. He had been walking across an island.

For a moment the mere prospect of lowering his hurt and shivering body again into that cold, unfriendly blackness unnerved him. It was only the hard realization that a night in the open in his condition would kill him more surely than the men on the north bank, that prodded him forward.

The swim, this time, was mercifully short. He employed the same technique as before, letting the current carry him along the circumference of its sweep and then, at the last moment, striking out against it.

A FEW minutes later he was on his face in a blessed piece of meadowland. And about a hundred yards ahead of him he could just make out, now that his eyes had had time to get used to the night, the bulk of a building.

He rested for a minute, then climbed to his feet and plodded forward towards it. He seemed to have got into a farm track: the one, no doubt, which ran between the building and the river down which the cattle went to drink. He followed it, and found that it circled the building, keeping outside a low wall.

When he got round to the front he saw that this was something more than the ordinary farm. It was a house of some size. It also seemed to be quite dark: deserted or sleeping.

Nap stood on the drive, turning the matter wearily over in his mind. He was well aware of the difficulty of waking a French house once it has put itself to bed. Then he saw that he was mistaken. There was a light in one of the lower windows: a gleam, through shutters. He walked

Victoria, in the dock, gasped, but Macrea did not pause in his story. She listened intently

across and knocked on the door. Nothing happened. In a sudden fury he raised the heavy iron knocker and thundered it down on the woodwork. Very slow footsteps, a crack of light, and a voice which said: "Who is that?" It was neither hostile nor friendly.

"An English tourist," said Nap. "I have had an accident with my motor bicycle, and been thrown into the water. I fear I am hurt."

"I am not a doctor," said the voice doubtfully, "but come in."

Nap followed into the hall, then into a long room, partly kitchen but mostly dining-room. There was a big fireplace with one of those everlasting wood fires, which never seem to blaze very fiercely yet never quite die. The man was throwing sticks on to the bed of white ash.

"I fear that the water . . ." said Nap. There was already a pool round his feet.

"They are bricks," said the man. "Water will not hurt them. I must fetch you a blanket." He did not seem unduly surprised. Nap thought that possibly the Frenchmen in those parts had gone through so much during the war that nothing would now have power to surprise them further. "For your wound, too," said the man, "I have a medical box."

By the time he came back, Nap had got his shirt off. His hands seemed to be functioning clumsily.

The movement had started the blood again. Now that his shirt was off he could see the damage: a long wound across the top of his stomach, the flesh, blanched by water, and drawn away from the lips of the cut, made it look worse than it probably was. It did not seem very deep.

The Frenchman had come back and was looking at the wound critically.

"A curious accident," he said at last. "Here is the box."

Nap, to his surprise, saw that the man was holding out an olive-green, japanned steel case. He recognized it at once. It was the excellent first-aid kit of a Sherman tank. Nap knew it well. The contents seemed untouched. He opened a packet of sulphanilamide, poured the whole contents on to a new gauze pad, and started to fasten it over the wound. It was while he was doing so that he found he had really lost control of his hands.

"Let me," said the Frenchman. He finished the strapping of the wound deftly. Then he removed what was left of Nap's clothes and started to dry him, firmly but not unkindly, with a very rough towel.

Ten minutes later Nap was feeling a lot better. He was sitting in a chair by the fire, drinking, very slowly, a tumbler of apple brandy. He was wearing a long, grey nightgown, buttoned round the neck. His drying hair was beginning to stand on end. Round his legs, kilt-like, he wore an American army blanket. He was even beginning to review the events of the evening with a dangerous complacency, when he received the next shock.

The room, as he had noticed, was a long one. It ran the full breadth of the house, and the windows at the back overlooked the river. The Frenchman had opened the shutters and said something which Nap did not catch. Then he repeated it. "Much activity."

"I beg your pardon," said Nap. "I didn't——"

"I say, possibly it is your friends who look for you. There is much activity. I can see lights. They are at the bridge over the river."

LOOKING at him, Nap thought hard. The man seemed dependable. In any event he was clearly entirely in his power. "Not my friends," he said.

"So," said the man. "Then possibly it would be better to close the shutters again." He did so and came back into the room.

"I think they are the people who. . . ." Nap indicated the wound in his side.

"The people who caused your motor cycle accident," the man said quickly. "There is not the least necessity for explanations. Things happen. One does what one can to help. It is preferable to know as little as possible."

"Have you got a telephone?"

"There is one in the closet. Follow me, please."

Nap gave the operator Madame Delboise's number. The bell rang once and then he heard her voice. Rapidly he explained what had happened. He described the house he was in.

"A house with a long drive and a low white wall round it, just south of the bridge—yes. You are in good hands," said Madame Delboise. "I will be with you in ten minutes."

Her first words on arrival were: "Your appearance is fascinating. You look—I find it difficult to do you justice. You look like a choirboy peeping out of the top of a bell tent."

"I feel like a corpse looking out of its windingsheet," said Nap sourly. "Did you have any trouble getting here?"

"No trouble at all. Nor can there be trouble now that we are here."

"I see," said Nap. Despite Madame Delboise's assurance, he felt glad of the three men who had come in with her, and who were now sitting, sipping their host's apple brandy and talking

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ILLUSTRATED BY K. J. PETTS

Pilot Harper goes gunning for pests

by JOHN MAY

With "guns" loaded with poison Pilot Jim Harper sets out on his roving mission: to spray death from the sky—and save the farmer's crops

Jim Harper at the controls of a Hiller 360 helicopter. Jim has pioneered spraycopter flying

A DOZEN DARK-SKINNED WOMEN walked sedately in single file from the canal towards their native village, each balancing on her head a shiny four-gallon petrol tin of water. Then, out of the hot Sudanese sky, came a throbbing whisper that crescendoed to a roar. Two crop-spraying helicopters were coming in to land.

The women started to run, tins bouncing and water slopping wildly. The pilots climbed down grinning, and lit cigarettes to wait for their ground equipment to arrive by lorry. "After that," said Jim Harper, "egg-and-spoon racing is out of date!"

Flt.-Lieut. James Harper, A.F.C., ex-Fighter Command, was posted on special duties in 1940 to rotary wing aircraft. At that time it meant autogyros (with their horizontal "windmill" driven by the slipstream from the airscrew). When helicopters arrived from America he became chief flying instructor at the R.A.F. helicopter training school at Andover. But Lease-Lend suddenly finished and he found himself one morning with a letter in each hand, both offering jobs.

One was from a new organization that had been working with the Ministry of Supply experimenting on spraying crops from the air: Pest Control, Ltd. Harper joined it to start its aviation department at Bourn, near Cambridge. It was July, 1947, and he had enlisted in a new war—the war against starvation.

Streamlined Farming

On a fine morning not quite two years later, motorists, cyclists and pedestrians clambered up the bank of a road a few miles south of Saxmundham and lined the wire fence. Out in the green barley, swathed in white overalls and goggles, stood a man. He raised both arms above his head as if to invoke a benediction on the knee-high crop. In answer a helicopter came roaring over the onlookers' heads straight at him. As it swooped down, a mist of spray spurted from beneath it. The powerful down-wash of the rotors flung it hard at the crop.

The marker stepped to one side, and the helicopter spun up the long field towards his colleague at the other end, flying only inches above the barley like a wasp buzzing a window pane. It reached the trees, rocketed over them, made a steep banking turn, and whirled off fast and high down wind, its tail up and the rudder propeller flashing in the morning sun. "This," said an onlooker enthusiastically, "is agriculture with a streamlined A!"

No aircraft looks quite so impracticable as a helicopter, but it has down-to-earth advantages for spraying. It does not wheel down the crop, land that is too muddy for a tractor makes no difference to it, and it works fast. Finally, the different ammunitions that modern scientists load into its spray guns are chemical magic.

A few months before the impromptu Saxmundham demonstration, Harper startled Africa. No helicopter had flown there before. He sprayed cotton fields in the Sudan to kill the jassid leaf hopper pest. As the cotton fields have to be flooded every six days, he could work when ground machines were held up.

Might Arouse Superstition

Pioneering the technique, he had to work with special care. One afternoon his helicopter hit a coloured marker's signal flag. Next day the frightened African was ill. Apart from humanitarian considerations, there was the danger of provoking "bad medicine" superstitions. Harper hurried him sixty miles by car to a doctor. "Was I relieved," he says, "when the doc decided it was only malaria!"

What the helicopter does in Africa directly concerns dinner plates here—apart from being a remunerative export of expert services. Large-scale use of D.D.T. emulsion in the Sudan cheapens greenfly control in Britain. Fighting off codling moth on South African apples and pears teaches a lesson about killing red spider. And working in two continents spreads the costs of men and equipment.

Pest Control's fleet consists of three Hiller 360 helicopters bought from California, and two Sikorsky S51 machines built under licence in Britain by Westland Aircraft. There are six pilots. Jim Harper himself is short, broad, blue-eyed and fair haired. Alan Green joined him in August, 1948, from the Fleet Air Arm. Lincoln Lord came from Coastal Command in March, 1949, and Peter Moore, also from the R.A.F., joined the same year. Ronald Sturgeon, formerly captain of an airline operating in India, and Dicky Hill, ex-R.A.F., joined this year.

The "spraycopter" pilots' calendar follows the crops. Work in Africa lasts from October to April. Corn spraying in large acreages like those of Salisbury Plain begins in Britain in March. Potato spraying takes up the summer, and celery occupies the autumn. The pilots fill in by extinguishing "tulip fire" in Lincolnshire, and spraying round Britain's harbours against pests from abroad.

Jim Harper's normal flying day begins with a telephone call to the nearest R.A.F. station for weather information. He wants no wind stronger than 15 m.p.h. "when the trees start to wave about," and he hates gusts "which can pick you up and smack you down uncomfortably hard." The crop has to be dry with no immediate prospect of rain. This may mean a start at 6 a.m. in summer, or as late as 10.30 a.m. as winter approaches.

The pilot warms up the engine himself. The rotor blades automatically engage by a centrifugal clutch as the throttle opens, and it would be easy for a mechanic to become airborne by accident. Between his knees in a Sikorsky helicopter is a joystick that tilts the machine and controls direction; on the left a "handbrake" for ascending or descending, with a twist-grip throttle on top. Two pedals for his feet work the rudder, which is a variable-pitch propeller at the rear.

A straight line pencilled on the pilot's map gives the course, but he avoids built-up areas —and chicken-farms. The fowls are likely to stampede, mistaking the helicopter for a hawk.

Two supply tankers and a van operate with each helicopter. The tank lorries travel on a leap-frog system, and the pilot always finds one

waiting for him, parked pointing into the wind. Each tanker carries aviation petrol, hundreds of gallons of chemical and water, and six large cylinders of compressed air. The air is fed into the helicopter to blow out the spray from its two torpedo-like tanks.

The helicopter works at 12-30 m.p.h., covering roughly sixty acres an hour. A swathe twenty yards wide is sprayed. The pilot has to watch out for neighbouring crops —marked in red on his sketch map if there is danger of harming them. A weed-killer for attacking buttercups in corn, for instance, can put paid to sugar beet or mangel. Superstitious wiseacres in one West Country village said that drift from the helicopter's spray cured a whole street of colds, and the winner's phenomenal vegetables at another village show were also put down to it. "We make no such outlandish claims ourselves," says Harper.

Despite all possible precautions, there are still flying risks. Last autumn, Jim Harper took Green and Moore to operate two Hiller machines in the Gezira, the irrigated land between the White and Blue Niles. Twice flocks of rahoos, large grey-blue wading birds, got up suddenly, and one or two smashed into the rotors.

Drama In The Mountains

The helicopter team's most dramatic engagement was in the Canton du Valais, a picturesque and fertile farming plain in Switzerland, surrounded by the precipitous foothills of towering snow-topped mountains. There, last year, vast swarms of cockchafers emerged from the soil, and clung—hundreds to every small branch—in the inaccessible woods of oak, poplar and willow that line the valley.

Swiss farmers knew that the cockchafer eggs would hatch into white grubs which would gnaw ravenously at the roots of vines, crops and alpine pastures. They began desperately spraying the valley bottom with D.D.T. But what was to be done on the 3,600-foot hillsides where the flying beetles hung thickest? It was impossible terrain for normal spraying gear.

In answer to their SOS, a helicopter came whirling in from England. Harper, Lord and Peter Moore found that ranging 5,000 acres of mountainside from the air was nerve-racking work. Air currents were treacherous. Watching the treetops a few yards below, they would fly out and suddenly find themselves gazing down thousands of feet into an abyss. "Not so good after the Continental breakfast of a couple of rolls," said Harper. But they began to get results, and in the words of a Swiss newspaper "the conquered beetles perished valiantly with feet in air on the field of honour."

Then disaster struck. Flying under a transport cable well marked with buoys, Peter Moore fouled an uncharted telephone wire strung below it. He revved up, but could not pull clear. His helicopter went out of control, hit the rocks, somersaulted 400 feet into the valley, and burst into flames. A farmer who heard the crash pulled Moore out. His backbone was injured in five places; his scalp needed fifty stitches. The machine was a complete write-off, but the job went on. Within forty-eight hours Alan Green had flown out another helicopter, "and inside a week Peter was sitting up in hospital eating a steak."

Start Of The Fight

From the day when some tobacco-chewing gardener first killed greenfly on his roses with a squirt of brown juice, sorcerers and scientists have tried out thousands of concoctions in the war against insects and weeds. In 1911 the French discovered that dilute sulphuric acid would kill broad-leaved weeds in cornfields without harming the crop. It was a start. Against insect pests the principal ammunition was then derris dust.

When Japan's invading armies cut off sources of derris root, scientists at Imperial Chemical Industries shortlisted forty synthetic substitutes. Says Dr. E. Holmes, now the technical head of the I.C.I. subsidiary concern, Plant Protection, Ltd., "Benzene hexachloride was the most promising." It was the death knell of some notorious insects, notably wireworm. The next discovery was so valuable that it was banned from wartime publication under the Official Secrets Act. Mysterious juices had been discovered in plants that provoked them irresistibly to develop roots, bend their leaves and stems, and produce fruit. They were labelled "plant hormones." Then a chemist named Zimmerman produced them artificially. The synthetic hormones were seized on eagerly by horticulturalists to make cuttings root quickly, to make blossoms set, and prevent fruit from dropping when nearly ripe.

This was what any gardener might reasonably have expected from plant hormones. The startling discovery made in 1940 by I.C.I. was that they could be used, as it were, *in reverse* —as a weedkiller. Thistles in corn, for instance, writhed like a man in a fit, and died from overstimulation, leaving the corn unharmed. Today hormone weedkiller cleans up a lawn without harming the grass. "We may even reach a stage," says a Plant Protection scientist, "when hormone control of the height of grass will do away with lawn mowing!"

When the hanging woods of the Valais were sprayed with D.D.T., the authorities first had to warn beekeepers to shut up their hives. The help of bees in fertilizing the flowers of fruit trees are as essential to the Swiss farmer as the cockchafer is harmful. But long before this scientists were trying to find *selective* killers for harmful insects, as for weeds. One such killer was developed from prewar poison gas research.

"Fifth Column" Killer

A famous British weevil expert, Sir Guy Marshall, of the South Kensington Natural History Museum, had met an Austrian entomologist, Dr. W. E. Ripper. He was experimenting with an organic phosphorous compound concisely labelled "bis (bis-dimethylaminophosphonous) anhydride." It worked as a kind of "fifth column" insecticide. Sucked up into the system of the plant, it did not harm beneficent insects that lived on pests, but any fly, bug or beetle that sipped the sap promptly died.

Pest Control, Ltd., which was founded by Dr. Ripper and Sir Guy Marshall, started in 1939 with £2,500 capital and a staff of six. Today, with its European and African subsidiaries, its chemical works, 1,200 employees (sixty of them entomologists) and £1,500,000 of capital, Pest Control of Cambridge is the world's largest insecticidal organization, outspraying even the international chemical giants of America.

Among the fleets of machinery inside its aircraft hangars are rows of small red spraying machines waiting for delivery to farmers. Other gear, made by Ripper's engineers for contract spraying by their own operators, looks ingenious to the point of absurdity. A tractor-on-stilts, seven feet above the ground, straddles cordon fruit trees and sprays both sides at once. One outfit has reversible driving seat and steering, to save turning at the field's end. Another is made for use in Egypt, and is demonstrated on a full-size stuffed camel.

Defeating weeds and pests in Britain completely would bring in £180,000,000 of food. Clean pastures would allow farmers to raise 9,000,000 more cattle. It would mean one extra loaf in five, thirty more eggs a year for everybody, an extra meat meal a week, more butter, more cheese, more sugar for all. At world levels, insects destroy annually enough grain to feed 150,000,000 human beings. If it were not for pests, fifty tons could be added to every 100 entering the world food trade. And the chemists continually extend their war to win this vital fifty tons. THE END

A Hiller helicopter at work. Pest-killing spray is shot down on to the crops by compressed air

Helicopter skims over an orchard. Flying at 12 to 30 m.p.h., it covers about sixty acres an hour

THE FLYING HORSES

by A. TREVENNING HARRIS

ILLUSTRATED BY WILLIAM LITTLE

It was a day of miracles, a day of wonder and glory. And it was nothing — nothing at all — to what followed

PILISO'S SKIN GLISTENED in the rising African sun. Standing with his laughing and chattering fellow blacks, he was waiting moodily for the skip to drop them some 2,000 feet underground—the prelude to another long, uncomfortably hot work-day.

He was homesick, thinking wistfully of his hut on the outskirts of a distant village. Land! A man lived by his land. Piliso's arms ached with desire to lay an axe against a stout yellow-wood tree, to hitch a team of oxen to a loosened stump and jerk it from the stubborn earth, to clear and level the ground for crops of mealies and Kaffir corn and pumpkins. . . . To earn the money to buy more land had been the reason for this three-year labour contract with the De Beers diamond-mining firm.

The line of black workers shuffled forward. Piliso filed into the skip. It dropped downwards with frightening speed. He was gouging at his ears, trying to rid them of the cottony feeling, when the skip stopped. He followed his noisy companions along the dimly lighted corridor to his accustomed place beside a chute. And the thought that came to him every day came again. He was no mole to bore into the ground! He was a man, a tiller of the soil, a hunter—and now for eight monotonous hours he must fill truck after truck with the blue ore that mothered the tiny fire-stones, crystals which were reported to be as beautiful as the Kaffir beads his wife, Nombie, wore with such grace. . . . His wife . . . his home! His son, 'Ndlambie, would be almost five years old by now, a boy who needed a father! The miserable thought occupied him till lunchtime.

And later, while eating his lunch of hominy, he teased the spilled gravel chippings between his spread legs, and with a finger began drawing rough outlines of the village and his hut, to bring the haunting sense of home from inner mind to outer eye. By chance, he saw a cold gleam in the rubble, and bent forward to pluck from within the diagram of his own hut a bright pebble the size of a large marble. It was a pale yellow crystal, brilliant and soap-smooth, thrilling to feel.

His fingers moved with interest from the squat, square middle up the tapering sides to a rounded point. *Inshlé*—pretty! If only this crystal had a hole through it like a bead, he'd take it to Nombie. . . . And then his exploring fingers stiffened, his very torso stiffened. The fire-stones, treasured by the whites! Could this be one of them? A precious thing found glowing right in the centre of the drawing of his hut. It was an omen—a good omen!

"Get busy, Jim! Don't take all day to eat your mealies!" A foreman had sauntered towards Piliso. By the blacks, this disliked overseer had been derisively nicknamed "Kolwané," for his beak-like red nose and grating voice gave him a likeness to um-Kolwané, the Crowned Hornbill. Scowling as usual, the white man looked down at the drawings in the gravel.

"Making pictures instead of working, eh? Get up, you lazy beggar! The trolley'll be along any minute. Scrape up that gravel. *Hamba!*"

"Me work." Kolwané's sort always spoke unfeelingly to the blacks, so Piliso took no offence at the rough words. He pushed himself to his feet before he opened his fingers to reveal the glowing pebble.

"Master, me find pretty stone by foots." He pointed to where Kolwané's contemptuous shoe had disturbed the outline of the hut. "Him fire-stone? Me get plenty big baso?" Everyone knew that the worker who found a diamond received a gratuity. He grinned hopefully.

THE white man's abruptly changing eyes made Piliso recall those of the shrewd witch-doctor at home when smelling out a case of sorcery. "Give me that stone!" he said.

Piliso looked at the crystal in his closed fist. "You no take, Master! Him mine! Me give to big boss. Me get baso . . . money, yes?"

"Ha! Stealing! You want me to blow my whistle and have you arrested?" Kolwané threateningly brought his whistle near his lips.

"No . . . please!" Piliso's fingers relaxed until the gleam of the crystal seeped through them. He was depressed, because now the foreman's foot had wholly obliterated the drawing of the hut. Also an omen—and a bad one. For a moment the black man held the stone close to his puzzled face, then made to toss it back on the ground.

"Give it here!" The foreman caught Piliso's wrist and plucked the stone from his palm. "First stealing, then trying to throw away the evidence, eh? I'm afraid this means jail for you, Jim. You know . . . the tronk."

"Tronk?" The rich brown colour drained from Piliso's face. His lips became thick and pulpy, his mouth harsh as sandpaper, his tongue pulsed hotly. Agonizingly, he saw his home, his son, his wife, the acres he had hoped to own, the broad expanse of the river beyond his village, the swamps where the great white herons stalked and flew. . . . Then, with the sensations of the tronk doors closing behind him, the dear visions faded. Face working and hands gesturing, he implored, "Master, you no tell big baas . . . please! You take him fire-stone. Me Piliso, good boy. You no tell big master . . . yes?"

"Well. . . ." With almost no movement of head or neck, the foreman carefully studied the

To save his enjoyment to the la

nearby blacks in the corridor. They seemed incurious and unconcerned. Now, the empty trolley trundled up noisily. Automatically, Piliso halted it under the chute and pulled the lever for a bellowing cataract of ore to crash into the metal paunch. Kolwané tossed something into the truck.

"All right, Jim, there goes your diamond. It won't be lost! It will be found on the sorting table tomorrow." He grinned at the relief in Piliso's eyes and face, before he warned: "But if I ever hear a word going round about that stone. . . ." The sibilant sound he gave while running a forefinger across his throat made Piliso think of a sharp Kaffir knife sliding across the neck of a sheep.

He shivered in the heat of the tunnel.

LATE that afternoon, while Piliso squatted over a cooking-fire in the compound yard, a white inspector followed by a Zulu interpreter came up and nudged him, not unkindly, with a booted foot.

"Hey, boy! Are you Piliso?"

Piliso glanced up into the stern grey eyes. Immediately, he knew! He knew—his indignant friends had carried out their threat to tell one in authority about the foreman and the big crystal. Had they not gathered around as soon as Kolwané was out of sight, insisting that the foreman had tossed small, worthless gravel into the trolley? Their chatter had made him miserable. They had berated him for not demanding his rights to take the fire-stone to a big master.

He glanced towards his fellow workmen. Their heads were averted.

"Yes, Inkoos—me Piliso," he mumbled.

The inspector turned to his companion. "Ask him if he's the same boy who found a big diamond this morning."

The Zulu interpreter put the question to Piliso

t, Pilso closed his eyes. But as they topped the rise, he knew the village would be in sight. He was unable to bear the sweet suspense any longer

in many words, using the flowery phrases of Kaffir. Pilso, gesturing dramatically, told his story and the inspector listened with much interest to the interpreter's translation. Then he pulled from his pocket a small picture of a man s face. "Is this the foreman to whom you gave the diamond? '

The black was numb with fear and shame He raised a trembling finger to his drooping lip When he tried to answer, he made only foolish, baboon like sounds. He nodded reluctantly

The inspector thrust a hand into his pocket and brought out a large crystal.

The fire-stone!" Pilso pointed "That is it, Inkoos! And yet Kolwané——" He covered his mouth with a hand, indicating great surprise

The inspector smiled and dropped the stone into his pocket "Tell him to bring his gear—everything—and come with us."

The interpreter, putting the inspector's words into Kaffir, added proudly: "And you will be taken to the hospital by smoke-wagon I drive it every day '

"The hospital?" Pilso shrank back, "But I am not sick! '

The interpreter shook Pilso's arm. "That is but the white man s custom And little though you deserve it, the white lords propose to give you money—much silver—for the finding of the big fire-stone. One part in ten of its value will be your baso."

As he heard the Kaffir word for "gratuity," Pilso's drooping lip lifted "Money!" he cried excitedly. "I must tell my friends!"

" Hold! ' The interpreter put a firmly restraining hand on Pilso's shoulder. "It is also the white lords' custom that when a black worker has found a fire-stone and is to receive the baso, he may no longer mingle with his friends, not even for a farewell for would they not thereafter neglect their work of digging and shovelling to spend the company's time searching for fire stones themselves? ' He took a breath and added ' Is that not wisdom?"

Pilso debated, "It may be so," and nodded reluctant agreement, before he hastened to gather together his few belongings.

From the still-chattering interpreter's words and gestures, he began to comprehend that rather than having suffered disgrace, he had taken on reputation. . . . How quickly would this have been sensed by Nombie, his wife, who was wise and quick of wit, and who would not have allowed him to entertain such intolerable fears.

With his bundles beside him, Pilso sat alone on the rear seat of the smoke-wagon Never had he experienced such great speed! Grinning, he opened his mouth, and the wind whistled through. He was very happy Perhaps the company was giving him enough money to buy one acre of land! If he cut down the trees the coming winter, then the second year he could remove the unyielding stumps. . . .

The smoke-wagon stopped before the sprawling buildings of the mine hospital At a signal, Pilso climbed over the door, not knowing how to open it He followed the two men, and at an order dropped his packages in the hallway before entering a large room

Behind a desk sat a man whom the Europeans called "sir " The inspector took from his pocket the fire-stone and laid it on the desk

"This is the stone I phoned you about, sir, and"—nodding toward Pilso—"this is the boy who was—er—intimidated. Had it not been for his friends—we'd no doubt have lost this. '

The wise man looked Pilso slowly up and down, and said thoughtfully: "Well, well!" The wise one reminded Pilso of both eagle and owl—eagle for courage and power, owl for wisdom, and, since he was like i-Fubisi, the Giant Eagle Owl, Pilso mentally dubbed the wise one "Inkoos Fubisi '

Now this Inkoos Fubisi had screwed into his eye a peculiar long tube with a round burning glass at the outer end, through which he examined the crystal intently. Then he placed the stone on a balance scale and very carefully weighed it. Pilso stood with mouth agape, wondering just what was happening, and whether good or bad for him

"He'll get ten per cent . . quite a windfall for a black!" The Inkoos Fubisi took a writing stick and made some scratches on a sheet of paper "That's the weight It's a perfect stone . . not a flaw!" He wrote down another figure. "This is my valuation "

The inspector pursed his lips and whistled

The wise one spoke to the interpreter. "Ask him how he wants to go home . . by train, by ox wagon, or we could even have one of the company chauffeurs drive him home We'll honour any request he makes. Within reason '

The interpreter relayed the astounding proposition

O-o-o-o!" A smile spread over Pilso's face "How do I want to go home? I have always desired a buggy drawn by two white horses!"

In astonishment the interpreter clapped a hand over his open mouth "A buggy? Two white horses? Foolish Kaffir 'ndodo, how can I ask such a boon for you? The white lords will call me crazy '

Pilso felt a certain mildly sympathetic distress But the white lord had asked, and he, Pilso, had answered according to his yearning He repeated, ' White horses . . . and the buggy

"Can't you make him understand, interpreter?

"Master, she foolish nigger! She say she want buggy and two horses—*white* horses." The

Piliso suddenly became excited at the thing in his hand. He hadn't noticed the foreman

embarrassed interpreter now covered his mouth with both hands.

"A buggy and two white horses?" The Inkoos Fubisi turned towards the inspector in amazement. They both began to chuckle, but not unkindly, so that the relieved interpreter grinned, and Piliso, not knowing why, grinned also.

"Those unpredictable blacks . . . you never know what they'll come up with next!" The Inkoos Fubisi's shoulders shook gently. "All right! Tell the boy that the buggy and the horses—*white* horses—will be his tomorrow. And there will be some cash, to boot."

The Zulu interpreter, losing his load of fear, lightly related the decision. Piliso swayed. His knees, weakening, threatened to buckle under him. He was speechless: he could not force his lips to utter his gratitude.

At first Piliso was awed by the splendour of the black hospital orderly's white duck trousers and coat. But a glance at the man's left hand disclosed the little finger to be shorter than the rest by one joint and, consequently, without a nail. Piliso drew himself up. He frowned. "What? A Fingo?" He backed away from the contact. "That a high-born Kaffir should be conducted by a lowly Fingo!"

Mutilation of the end joint of the left fifth digit was a tribal custom of the Amafingo. Had Piliso not shunned members of that tribe, even in the compound? He found an open window, and spat to remove the taste of disgust.

The unperturbed Fingo led the way to a small dressing-room. "Truly I am of the Amafingo." He smiled patronizingly. "But, working with the white lords in this hospital, I have learned much. No longer does even a Kaffir offend me! Give me your foolish bundles, and then I shall collect your dirty garments." He held out large hands for Piliso's packages and pointed towards a trap door in the wall. "That great mouth will swallow them up. In another place you will be searched, and the clothes will be put through steam, to kill the amatwala that bite and make you itch. Such are the white man's orders. . . . Remove your clothes, lowly one!"

Doubtfully, as an ox going to the dipping tank, Piliso entered the shower. When an unseen power caused very hot water to spray at him from every side, he cried out in protest. In a few minutes he would repay that presumptuous one for thus boiling him! The door opened an inch and he was ordered sharply to use the soap, and so became too busy to maintain his attitude of anger.

Without warning, the hot water changed to cold. He cried and laughed aloud under the shock of the invigorating spray. The Fingo opened the door, after turning off the icy flood. Piliso forgot his dignity as a superior Kaffir. "The ways of the whites are indeed a mystery to me!" He smiled at the orderly. "Lo, that the pleasure of this delicious bath should be given just because a man has found a fire-stone."

The Fingo snorted. "Come, make haste! Follow me!"

The small room smelled of many medicines, and held a remarkable chair resting on a single fat leg; and after Piliso had been seated, the chair began to rise. Terrified by such sorcery and sure that he would be crushed against the ceiling, Piliso tried to jump, but the Fingo gripped his knee and spoke reassuring words. Then a white man, wearing a white coat buttoned up to the throat, loomed up.

"Be not afraid!" the orderly whispered. "This is the doctor of the teeth!"

"Well, Jim . . . any cavities?" The dentist glanced impersonally at Piliso. He hummed an unpleasant, high-pitched tune. "A-hunting we will go! A-hunting. . . . All right, Jim. Tell him to open his mouth."

The dentist poked around with a tiny round mirror on a long handle, exclaiming admiringly: "What a cavern!" And Piliso sensed by the white man's pleased expression that a compliment had been paid to him, and smiled proudly. Now, using a metal rod with a tiny hook on one end, the dentist began to explore the hollows of three decayed teeth that always filled up with the small seeds in certain tinned jams. Was not this kindly Inkoos bent on giving pleasure to a humble Kaffir, by cleansing everything out of the great holes?

But the Inkoos, although he had reached the pleasantly tickling bottom of the largest hole, seemed unsatisfied. He took a drill and bored deeply, until the tooth responded with a sudden jolt that lifted Piliso from the chair the length of the blade of a hunting knife.

"Wow!" Piliso's eyes showed the whites all around the pupils, while he looked to satisfy himself that there was neither knife nor blood. But the dentist was laughing merrily, so the jolt must have been given in jest, and Piliso joined in the laughter. How it had been done was a deep mystery, but Piliso never remembered having enjoyed a joke so keenly.

"Wham into the pulp cavity!" The dentist slapped Piliso's shoulder. "Sorry, Jim! Hurt you much?"

Piliso circled his mouth with a tingling tongue. "Him feel good, Inkoos!" He grinned, while pleasurable darts and stabs radiated from the tooth's jangled nerve up into his head and down into his shoulder.

The dentist chuckled. "A white man would have been ready to sue me for that!" He said to the orderly: "No sign of even the smallest diamond. . . . O.K., that's all, Jim. Better watch out for those hollow teeth!"

"Inkoos! Inkoos!" Piliso inclined his head politely. Slowly, the smile faded from his lips. He understood a word here and there. "Diamond . . . teeth. . . ." He wondered why the Inkoos could be so foolish as to expect fire-stones to grow in a man's mouth.

Next, a white-coated Zulu worked a steel-toothed comb through Piliso's matted hair and removed many little amatwala. How comfortably his head itched now. . . . Nearly three years since Nombie had combed it thoroughly. If only she were here to wash it for him. . . .

The Fingo led him to a strange room lighted by a red glow from the ceiling, and filled with a peculiar drone like the buzzing of a hive of wild bees. Piliso glanced around to discover the source of this noise—and hastily backed into a corner. For a white man with terrifying large red eyes had entered the room. The orderly pulled at Piliso's up-bent, shielding arms.

"Have no fear, lowly Kaffir! This is but a doctor, who considerately wears red spectacles because the machine yonder is afraid of his eyes!"

The doctor removed the magic glasses, and, lo, he became an ordinary Inkoos! The ways of these whites—using such sorcery to give a Kaffir celebrity a moment's thrill! Piliso chuckled weakly—but when ordered to lie down on the beautiful polished table, he demurred. Tables, he knew, were for whites to eat from. Should a black commit such sacrilege? However, even the doctor gestured emphatically towards the table, so, with a shrug, Piliso obeyed.

"Any scars?"

"Ja, baas," the Fingo answered in Afrikaans, pointing to a knife wound of many moons ago on Piliso's right shin, and then to an old, puckered scar made on his belly by the sharp horns of a wounded bushbuck.

The red light faded and the room became as dark as Piliso's own corn pit when the stone covering was in place. A glass-covered frame moved lazily over his legs and belly until the white lord gave a satisfied grunt.

"All right, off the table. *Lala pansi* in the chair now," he said.

Piliso next enjoyed the removal from his ears of the waxy accumulation of many years, while his heart glowed with satisfaction. Now, were he back home, he would be able to hear the dropping of a single kernel of corn into his deep pit! When it was over, he expressed his gratitude through the interpreter, and this time he was only mildly surprised when the doctor, smiling at him as at a witless child, said that he was very happy not to have found a single fire-stone in ears or scars.

Piliso was quiet, filled with disturbing thoughts. Why did all the kindly, accommodating people in this hospital expect to find diamonds growing in his body? Were they bewitched and he alone sane?

He had been led to a large ward, where black patients occupied many of the beds. Before an empty cot the Fingo had halted.

"For tonight, this is your bed, lowly Kaffir. Do not drag the blankets on the floor to sleep." The Fingo lifted from the bedside table a cup more than half-filled with a thick amber liquid, and smacked his lips. "*Mnandi!* Good." Unable to resist temptation, he stuck in one finger and sucked off the luscious ambrosia. "And little though you deserve it, this is now yours to drink, lowly one!"

Piliso sniffed. "Wow! Kastaroily!" He sipped at the tasty beverage, over which he would have lingered. But, because there were other wonders still to be shown, he was urged to gulp it down.

"Come! The bathroom . . . I have yet to instruct you in that rite," said the Fingo.

The bathroom! Such wonders! There was

Continued on page 31

Inspector Bennett starts a paper-chase

by WILLI FRISCHAUER

Bennett of the Records gets his man with the aid of a card index of crime—the crooks' Who's Who

With his "Modus Operandi" cards at his finger tips, Chief Inspector Bennett (right) directs a search—on paper—for a suspected man. Even the slightest hint may lead to an arrest

"IN ABOUT SIX OR SEVEN DAYS from now," said the detective as he sat chatting with the landlady of a Cardiff boarding house, "you will probably get an odd couple looking for rooms. The man is about five foot four; has a dark moustache. Real name unknown so far. He'll probably tell you the woman with him is his wife. She isn't."

"In that case," said the landlady, "they won't get in here. I run a respectable, select house——"

"That's just it, madam. This man stays only at respectable, select boarding houses. Now for some more information we've pieced together at Records. He usually dresses in a check sports jacket. He can tell the tale. He'll try to borrow money with a story of a delayed cheque. Don't fall for it, because he's a bilker. Give us a quiet ring when he arrives and we'll send a reception committee round."

While the detective moved round the city visiting "select and high-class" boarding houses, back at Cardiff City Police headquarters Chief Inspector Geoffrey Bennett ("Bennett of the Records") and his staff were poring over a map of South Wales, with a number of towns circled in red and joined together with a line to show the bilkers' progress. If they stuck to their routine (and Chief Inspector Bennett through his long experience on the beat knew that crooks almost invariably do), then they were due to hit Cardiff within a week. As the days passed, further details were added to cross-referenced cards in the registers known as "Modus Operandi." On the seventh day, the landlady telephoned and the promised reception committee arrested the bilking couple.

Underworld's Weaknesses

With the pair safely behind bars for a year, Chief Inspector Bennett added more information to his "Nominal Index" and to the thousands of entries in the Modus Operandi registers which list the habits, haunts, idiosyncrasies and weaknesses of every class of criminal. They range from arsonists to confidence men, from potential sexual maniacs to part-time shoplifters, from wealthy sharepushers to small fry who steal unattended coppers from newspaper vendors.

Everything that is known against a "known" person is there. It is the task of Criminal Records at police headquarters all over the country to keep the information up to date, so that when a name or a description is circulated, even the slightest hint may start the process of "catching a thief on paper," as the Inspector calls it. "This does not mean," he says, "that initiative is stifled. It is merely an aid to greater efficiency—a job that goes on patiently in backrooms day in and day out and which seldom receives the light of publicity."

Whenever, for instance, a brutal child murder shocks the nation, Record experts all over the country immediately go to their files. Automatically Bennett, like the others, turns to a special section indexed under "Offences against the person," and a further sub-section "Crimes against children." There, listed alphabetically under such headings as "Abduction" and "Assault" are the records of men and women whose crimes varied from petty thieving from boys and girls outside schools to grave sexual outrages. At the time one murder was discovered, there were at least twenty-five "potentials" booked with the Cardiff City Police. Thousands more were extracted from similar files all over the country. Armed with information entered under "Known haunts" ("drinks heavily and prefers dockside pubs" is one entry) police officers and detectives tramped for miles checking up on the movements of "potentials" at the time of the outrage.

As always, an eye was kept on the "Copyists." After any such murder, police stations expect a number of attempts by known perverts whose base instincts are aroused and who await their chance to copy the crime. "At such times we have to move very fast," says Inspector Bennett. "Five minutes' quick thinking may prevent another life being lost."

It has long been an axiom among criminologists that crooks not only stick to one "line," but that their working methods hardly ever vary. Professional burglars have "trademarks" which may give them away quicker than if they had left behind a signed confession. Somewhere on Inspector Bennett's books is the highly strung burglar whose nose always begins to bleed the minute he starts working. Another "known" can never bring himself to ransack a room containing a crucifix.

One small-time crook who was known as "Bombay Oyster" no longer troubles householders or frightens old ladies out of their wits at night. He is now in prison and his peptic ulcer is said to be much better. If it were not for the ulcer he might still be free. For months police had been receiving reports of a burglar who always drank a glass of milk and (if he could lay his hands on one) a fresh egg beaten up in it to form the stomach quietener known as a "Bombay Oyster." Inspector Bennett searched his records for stomach sufferers. The "paper-chase" started. Next time there was a "break" that followed this pattern, "Bombay Oyster" was asked to account for his movements on the night of the crime—and couldn't.

"Waxy's" Fatal Habit

On the books, too, is a housebreaker who cannot resist brightly coloured ties. There is an old lag who leaves candle droppings all over the floor. Once, in a confidential mood, he confessed that he had used a candle when he did his first job. "I don't seem to be able to break myself of the habit," he told Records petulantly after they had pieced together other data and told policemen on the beat to look out for "Waxy" and bring him in.

Confidence men and "fraudsmen" are better known to Records for their Tale, Method and Style of Dress, rather than by the aliases they work under. Even these, Bennett has found, tend to follow an unimaginative pattern. Once, reports began to pour in that a man named White was at large telling the tale to well-to-do widows. "Let's look at the colour scheme," said the Records officer on duty at the time; and in the Nominal Index he looked under "B" until he found the name Black, detailed as a confidence trickster—"usually preys on widows." Under the name Brown, last heard of some years before, there was another widow charmer. And before that there was a certain Mr. Green who did the same thing.

"Once a man chooses one type of name," Inspector Bennett explains, "for some crazy reason he is apt to stick to something similar. We used to have a man named Butcher who, after he came out of prison the first time, changed to Baker, got caught and, according to the cards, later lived under the name Taylor. A Macpherson or a McTavish, for instance, always seems

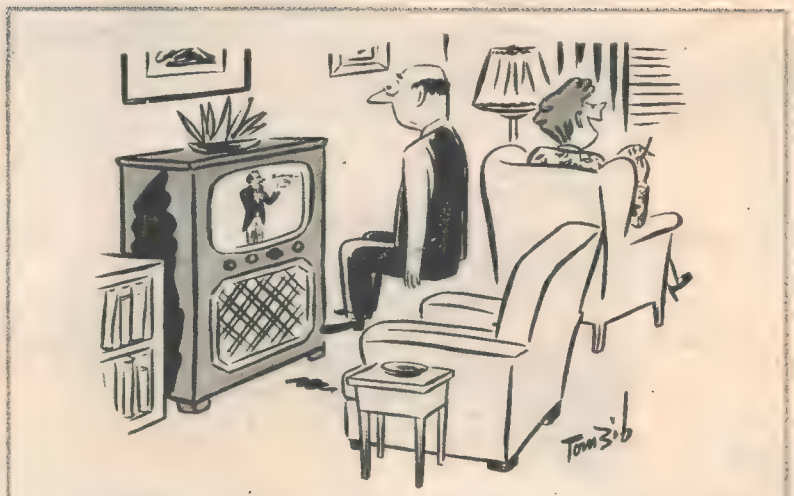
to stick to a name beginning with 'Mac.' Perhaps it's a form of national pride."

Soon after the war, the Inspector was kept busy by a number of ingenious frauds carried out by a rash of Army captains. They proved to be the same person. "Frustrated n.c.o. who didn't get a commission," is Bennett's terse explanation.

"Style" is often a signpost, too. Once a fraudsman begins to describe himself as a merchant seaman, he may in subsequent jobs promote himself to ship's engineer or even captain, but it will always, because of this weakness ("all criminals have a weakness"), be connected with the sea.

The index cards of one habitual criminal list more than a dozen previous convictions all conforming to a pattern. In each case he represented himself as ship's officer. His only other foible is that he uses, according to one man he robbed of a large sum, strongly scented hair cream. An observant Records officer who, like Inspector Bennett, is famous in police circles for his photographic mind, remembered the overpowering smell when he had arrested him five years before. A glance over the index did the rest.

Confidence tricksters have their favourite off-duty topics of conversation. There is one "con-man" who, Inspector Bennett feels, must now be boring his fellow convicts stiff with tales of Sydney and Melbourne. He had an obsession for telling his dupes about life in Australia. For many months he was successful in making women part with their money with details of schemes guaranteed to make a fortune overnight, but sooner or later, they reported, the talk always came round to Australia. This "connecting link," carefully indexed as such on the cards, eventually led to his arrest.



"I still think that hypnotist's a fake, don't you, dear?"

One of the strangest entries under "Trademarks" ever known is the one that goes, "Always uses a rabbit as a decoy."

Whenever he was caught in a house by the householder, this burglar invariably had a rabbit with him, and would explain. "Why, I'm doing no harm. I just saw this little fellow in the street and followed him in." That excuse worked, on the first five occasions. Then, from other parts of the country, came reports of burglaries where rabbit's hair had been found, even in large blocks of flats right in the middle of cities. The burglar is now in prison.

Records officers are the first to agree that good powers of observation and a lot of painstaking hard work are still the most important factors in crime detection. The indexes are there to augment these qualities. Mistakes are still made. Crooks who discover them laugh loud and long at official discomfiture.

There is, for instance, a certain station sergeant who, every Records officer knows, will never again advance money under any pretext. In indexes all through the country there appears the name of a petty crook on whose "Type of Offence" card appears the entry "Fraud." Under the heading "Tale" there is a dramatic story of how he approached the police sergeant with a hot tip about an impending burglary. All he wanted, he said, was £5 for the hire of a car so that he could join the gang and lead them into a police trap.

The sergeant paid over the £5. He has never seen or heard of the man since.

Details about him are few, but the incident will be remembered in Records departments for many a year. Under the heading "Type of Victim" someone has been unkind enough to enter the information—"Unintelligent station sergeants." THE END

FIFTH CHILD

Continued from page 10

rocker next to the table, with her reading glasses on, peeling potatoes. Undecided, he stood in the shadow of the apple tree, watching her. The peel grew longer and longer as it curled around her fingers. He didn't know how long he stood there watching her, but the suddenness of her voice made him jump with surprise:

"Well, boy, you going to stand there all day just staring?"

He hung his head and moved out from the tree up to the door.

"And don't be bringing that old frog trap of yours into my clean kitchen, either."

Blushing at the idea that she thought he had meant to bring it into the kitchen, he slung the trap from his shoulder and let it sink in the rain barrel. Then he came back to the doorway but didn't enter. How could she think that he would bring old bait frogs into the place of reading? In the evenings, with the curtains drawn, the kitchen was even better than beneath the bridge; he would sit on the hassock at her feet and she would read to him, first a chapter from the Bible, which he patiently sat through, and then a chapter from King Arthur, which sent him reeling off to bed with his head filled with knights and Holy Grails and battles and dragons.

"What's got into you, boy?" the woman said, in her calm, methodical voice. "You ain't spoke a word. I might as well save my breath to cool my porridge. How many did you get?"

"About two dozen," he answered, and the lie was out before he could catch it. He lowered his head so she couldn't see into his eyes; his right hand crept stealthily behind his back.

The bell on the front door tinkled, and the next instant a woman's voice called into the kitchen: "Any mail for me, Mrs. Craven?"

"Nothing today, Mrs. Russell."

"Oh," the voice said, then: "Well, could I have a couple of packs of cigarettes?"

Mrs. Craven looked at Roland questioningly. It was one of his chores. He dropped his head, hung on to the door and stubbornly tightened his lips. Eventually he heard Auntynelly heave her 200 pounds up out of the rocker, and her slippered feet cross the floor, heard the murmur of voices from the office, then the tinkle of the bell again.

When she came back, he did not look up. She said: "What's wrong, boy? Something's wrong. Tell me." But he could only stand there shaking his head, biting his lower lip to still its trembling.

The rocker began to creak again. "Well, maybe you'll tell me later," the methodical voice said. "You want something to eat now?"

He shook his head without lifting it. Unsure and uncertain now where once he had been so sure and certain, he stood there awkwardly twisting one bare foot on the other, until the silence became too much for his seven years and he whirled about, retrieved the trap from the rain barrel and slung it over his shoulder and ran up the lake road.

MR. JOHNSON was on the dock of the Lake lodge waiting for him. As Roland came up, the fisherman called: "Got any, son?" and the boy nodded his head and slung the trap from his shoulder.

"How many you going to let me have today?" the fisherman asked.

Auntynelly had told him when he had first come, first started baiting, always to divide the catch between as many different customers as he could, explaining that in this manner it wouldn't matter to him who among the summer visitors stayed or went home, there would always be some customers left. But Auntynelly was a liar and tighter than an orange.

There was a note of defiance in his voice as he said: "You want them all, Mr. Johnson? Three dozen?"

The fisherman looked a bit puzzled but nodded his head. Roland started the precarious transfer of slippery frogs from the trap to the other's bait box, counting aloud as he dropped each one in. "Thirty-seven," he said as he snapped the tin door shut on the last of them. "The extra's for good luck."

The man grinned. "Thanks, son. I sure need it." He took two one-dollar bills from his wallet and gave them to the boy. "Three dozen comes to a dollar eighty. The twenty is for good luck."

Mr. Johnson dropped into his boat. Roland handed him his box. He looked down into a wondrous and unknown domain: the two rods across the thwarts, gleaming steel and shiny lacquered bamboo, the mysterious green box, so like a carpenter's chest, with its lid thrown back and the silver and bronze and bright feathered flies lying in a row, each in its own tiny compartment; and last of all the powerful, streamlined outboard, bright steel and black plastic.

He sensed that Mr. Johnson was staring up at him and dropped his eyes as if caught looking at some forbidden thing.

"Son," the man said, "I don't ever remember seeing you out on the lake. You got some special place you go?"

Roland silently shook his head.

"You mean you don't like fishing?"

Roland dropped his eyes and nodded his head. Another lie. But how could you tell a stranger, a summer man like Mr. Johnson, that you'd never been fishing in your life, that you had no rod, no hooks, nothing; that you had to wait on the people in the post office store so many hours, catch bait so many more hours, and that no matter how much money came into your hands it must all be handed to Auntynelly and put into the blue china teapot on the top shelf? How could you tell Mr. Johnson any of that? You couldn't, you just couldn't.

The motor in the boat roared into life and then settled down to a steady hum. The fisherman made ready to cast off.

"Mr. Johnson," Roland said.

"Yes, son."

"Could you please give me change for this one dollar?"

The man took the bill and went through his pockets. "Four quarters all right?" he asked as he put the change in Roland's hand. "It's all I've got."

The boy nodded and thanked him. The man cast off and the motor roared and Roland watched the boat take off in a wide sweep out into the blue water, heading towards the North Bay, where the big bass and the pike lay beneath the lily pads in the heat of the day.

Once round the bend in the road, Roland placed all the money on a flat rock. His brow wrinkled with effort as he computed: two dozen frogs, that was a dollar and twenty cents, and the man could easily have given him a nickel tip. He picked up the dollar bill, wrapped it around a quarter and held it in his right hand. Scooping up the remaining three quarters, he pushed them deep in his overall pocket and then, for fear they might mysteriously disappear, immediately thrust his left hand in to grasp them.

It's mine, he thought, with a sudden fierceness strange to him, all mine. And nobody else's. Not even Auntynelly's. She was mean. Bad. The man on the bridge had said so. As he walked slowly towards the post office his mind began to fill with a nightmare picture: of Auntynelly hovering over her blue teapot, her face all crooked and contorted, the eyes behind the spectacles enormous, fingernails attenuated and knifelike; and in his head the picture grew and grew, shutting out all other sensation, until she stood revealed as the witch of Hansel and Gretel.

FOR the first time since his coming, the house had an alien look. Stepping from the bright sunlight into the shadowy kitchen, Roland squinted his eyes. For a second everything was indistinct. He saw the woman turn from near the sink, and in her hand was the big carving knife. Guilt and fear tore at him and he quivered and shrieked with terror and he took the money and threw it on the floor at her feet, yelling over and over again; "No! Please! No! I lied. I lied." And

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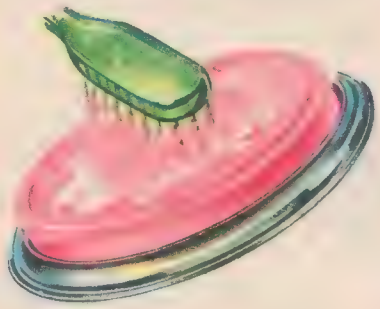

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he pressed himself into a corner, shaking with fear, tears streaming from his eyes, hiding his hands behind his back.

"What is it, boy?" the woman demanded. "You gone crazy with the heat? Come, tell Auntynelly."

The woman came up to his side and put her heavy arm around his trembling shoulders and, for the first time, he felt himself pressed against her side. All the while, the calm, methodical voice was talking to him, words he didn't comprehend. Slowly his hysterical sobbing subsided; the quivering went from his body.

After a little while, she moved away from him and seated herself in the reading rocker.

She said: "All right, boy, come sit in your place."

RELUCTANTLY, Roland shuffled across to the hassock. He forced himself to sit down at her feet, but he would not look up into her face. The minutes went by. The kitchen grew very still. Her rocker was motionless. Roland became conscious of the tick of the big clock over the stove. Head still bowed, he risked a glance at the money on the floor.

"Now tell me," the quiet voice said.

The very softness of the request tripped the floodgates again and the tears, much more gentle now, streamed down his cheeks.

"Please, boy," the voice said.

Against his will, he found himself choking out the whole story: what the man on the bridge had said, and all about the lies he had told her. Then he fell silent, feeling empty, expiated, and he ventured a glance upwards at her face; she was staring down at her hands in her lap.

Again, silence descended on the kitchen. His tears stopped. He began to squirm with embarrassment on the hassock.

The old woman got up, went to the cupboard and came back and sat down in her chair again. On the floor, directly beneath his lowered face, she placed five little books in a row. They were books such as he had never seen before: thin, light brown, and on the face of each was the picture of the same building. He reached out a finger to feel how deep an indentation the picture made in the cover.

"I don't know how much of this you'll understand, Roland" — he looked up quickly into her face and down again; it was the very first time she had used his name—"but I'm going to tell you, anyhow.

"Those are bank books you are looking at. Do you know what a bank book is, boy?" He shook his head. The woman pursed her lips in perplexity, and went on: "The man on the bridge was right in part and wrong in part, like most folks. Every year, for the past five years, I have taken a child from the Home to spend vacation time with me." Her voice became gentler. "Yes, they all tended the store just the way you do. It isn't so hard, is it, boy?"

He shook his head and lifted it, fascinated that she should be telling him a story in the middle of the day.

"All the money made from the store," she continued patiently, "all the money from the bread I make and sell to the summer people, and the rolls, too, goes first into the teapot and then into the bank for whatever child is living here. See. Five books. One for each child that's been here. Five summers. Five books. That last one, the one near your left foot, is yours. It has your name on the inside. Roland Smith."

He gazed with awe at the little brown book, waiting for it to magically fly open and disgorge its quarters.

"Do you understand what I'm telling you, boy?"

He nodded his head and found his voice. "You mean the money from my frogs is in there?" and he pointed his finger at his book.

"All of it," she said.

He picked up the book and shook it. Nothing came out. He stared up at her, suspicion hard in his eyes. "Where?" he demanded.

"Not actually in the book. In that building, in the bank."

Scorn filled his soul. "What good is that?"

"So that the children—when they get older and leave the Home, have at least something, a nest egg anyway."

It was a trick; there was nothing but pages in the book. He hated her. She was bad. Tears pressed at his eyes again. He fought them back, and sprang to his feet, inching away from her. "You tell lies. It's all lies. You're bad, bad, just like the man said." The hysteria began to mount again.

"Boy!" The voice was sharp now. "Go to your room! And stay there until you think you know how to act decent with folks!"

Never taking his eyes from her, he backed to the doorway and with a quick turn fled from her up the stairs.

LATE that afternoon, the woman did an unprecedented thing. She closed and locked all the doors on the lower floor, first calling him downstairs from his room where he had sat out the long hours in stubborn, self-imposed punishment. Carefully she explained to him that, as the house was part government property, it must be locked if she left it for any length of time. It made no sense to him. Then she told him that he was to be locked in until she came back, and that he wasn't to be afraid as she would return as quickly as she could. It was only what he had expected: his punishment was about to begin.

At five thirty he heard the truck come. Peeking from the upstairs dormer window, he saw her get in next to Luther Hardson and drive off. He returned to his bed, hurt at her neglect and terribly alone. He lay there on his back and the minutes dragged by. The utter stillness of the house became oppressive. He stared up at the slanting ceiling. It was very quiet now. He could hear the purling of the water in the stream where it swept down beneath the

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Above all we must gain knowledge. Ignorance can never breed intelligence.

by ROFFE THOMPSON

bridge. Only an occasional car went by on its way to the lake. The fear that he was to be left here in this terrible, quiet house for ever and for ever permeated his being. The bed upon which he lay became an island fort; all round him and beneath him was the hostile sea of the closed house. He watched the sun on the drawn shade. The yellow crept higher and higher until at last it showed only in the crack above the roller. Then it was gone. Tired from his tense, watching fearfulness, he finally dropped off to fitful sleep.

The sound of the truck pulling up to the house awakened him. Barefooted, he crept half-way down the stairs and crouched there, watching and waiting. A key turned in the lock and the next instant the lower floor and the kitchen were flooded with light.

"Boy?" her voice called softly.

He made no sound. She came to the foot of the stairs and, looking up, saw him crouching there. "Come down, boy," she said. "I brought you something."

Tempted, he came slowly down the steps and she placed the long paper parcel in his arms. His fingers tore at the string and tape. The paper fell away. The entire world lay in his hands: a fishing rod as beautiful as any in Mr. Johnson's boat, all gleaming steel and shining guides and wondrous nickelled reel; out of the bottom of the package fell an ivory spool wound with black thread line and, last of all, two flies, one with yellow and grey feathers, the other shining silver with wavering red and white paint on its back.

Incoherent words tumbled from his throat. He dropped to the floor flat on his stomach and lined his gifts up in front of him, touching each one with idolizing fingers. He put the rod together, then took it apart, then started the whole procedure all over again.

Once he tossed a remark at the woman in the rocker and for an instant saw her face; he had a sense that the eyes behind the spectacles were filled with tears, but then he forgot it in his engrossment.

At supper time, he brought the rod to the table. He sat with it in his lap and could barely eat for touching it all the time. And in bed, after supper, he could not sleep for thinking of it standing there in the corner of the kitchen. He waited patiently until he heard the door to her bedroom close, and then crept down the stairs and brought the rod upstairs. Only with it lying close to him beneath the blankets did he finally fall off to sleep.

He dreamed that he was sitting on his rock beneath the bridge, and Ol' King the frog squatted across from him. He tried to raise his rod, but his arm was frozen. He couldn't move it. And all the time Ol' King grew bigger and bigger until its head towered bridge-high above him; then slowly, slowly, the enormous head with its glittering eyes came down and down, straight at him. Now his entire body was frozen. The enormous jaws opened and he looked down an endless pink throat . . . closer it came . . . and closer. . . .

He woke up screaming: "Auntynelly! Auntynelly!"

He sat there, trembling, as he heard her bed squeak, then the shuffle of her slippered feet down the hall, and at last she was in the room. The lights sprang on.

"What is it, boy?" she asked.

"Ol' King," he managed to tell her. "He was going to eat me up."

She soothed him to quietness, pulled the blankets up under his chin. He felt at his side, first stealthily, and then frantically: the rod was gone! He sat bolt upright, his eyes hard and watchful. "My rod," he said, his voice full of suspicion again. "You took it back!"

She nodded her head. "Fishing rods don't belong in beds. I took it and put it in the tool house. That's the proper place for things like that. Every time after you use it, it goes back in the shed. Each and every time. You hear?"

He nodded his head, but his eyes were still watchful. He asked: "It's mine for keeps, isn't it, Auntynelly?"

"For keeps," the woman said. "And you can use it whenever you want. Even next winter. I'll show you how to cut a hole in the lake ice. That's the way to get the big ones."

"Next winter?" he said wonderingly. "You mean I'll be here in winter too?"

The woman slowly nodded her head. "Next winter, and the next, and the one after, and all the winters for ever, God willing." She rose to her feet. "Go to sleep now, boy."

His heart was suddenly very large inside him, but his suspicions died hard. "The other four—the other children. You didn't ask them to stay for the winter. Why?"

She was silent for a long time, looking down at him: "Because the first four were girls just here for their vacations. You take what the Home gives; it's not a proper thing to pick and choose. You were the first boy." For the first time, her voice broke. "The child I lost in the war, he was a boy, too."

He was a boy, and boys were preferable to girls: understanding was instantaneous and complete; the central core of the day's mistrust disappeared as if it had never been. The woman reached up and snapped off the light. In the dark, images of his nightmare once more arose.

"Auntynelly," he whispered, "stay with me a little while. Please."

The woman sat down again on the bed. He couldn't see her in the darkness. The image of Ol' King trembled in his consciousness.

"Auntynelly?"

"Yes, boy?"

"Hold my hand. Please. Just for a little, please."

Her hand was warm and soft on the inside and hard and scratchy on the outside. He pressed his cheek firmly against it, snuggled his head down into the pillow, and, as he closed his eyes, he thought he heard her sigh. THE END

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Toni

HOME PERM

JUST LIKE *NATURALLY* CURLY HAIR

THE TRIAL OF VICTORIA LAMARTINE

Continued from page 15

quietly to him. They all looked infinitely capable.

Headlights flared on the road outside as a car swung into the drive.

"I left a message," said Madame Delboise. "This may be——"

"On the other hand," said one of the men, "it may not."

The three men took up their positions quietly, one on each side of a window, and one behind the door.

A car stopped outside. Footsteps crunched on the gravel; there was a pause, followed by a very gentle knock on the door.

The owner of the house went out, and they heard his footsteps clattering along the passage and the sound of the front door being opened. There was a mutter of voices and the man came back. He was followed by a thick, middle-aged man who came into the room as if he owned it.

"Monsieur Bren," said Madame and Nap simultaneously.

"It seems to me," said Monsieur Bren, "that this is a time for explanations."

The trouble was that Nap was finding it increasingly difficult to keep awake. A deadly inertia was creeping over him, and he felt his head nodding. He was aware that Madame Delboise was explaining something to Monsieur Bren, their mutual contact at the Paris Sûreté. It was something that she or her colleagues had discovered. Nap had no difficulty in recognizing what it was. From out of the mists of talk, the miasma of weariness, the jumble of names and places, it stood out hard and clear. Like a spotlight in the dark, it focused on one place, picking it out in sharpest black and white, leaving its surroundings in greater gloom.

It was the Ferme des Grands Puits, as he had seen it last. Enclave, secret, set apart on its hilltop among the woods. He found, without surprise, that he was looking down on it from above. He could see the woods and the clearing, and the farm buildings. He could see someone moving, ant-like, across the clearing. Someone who carried something in his arms. He came down closer to look. He was about to overtake him when suddenly the man turned, and he saw it was Major Thoseby, who was smiling.

WHEN he awoke, the sun was high in the sky. He was in a box-bed, in an upstairs room. He had no recollection of coming there. His head was clear, and the wound in his side was hurting him, but in a healthy sort of way. It was stinging, not throbbing.

There was a cup of coffee on the chest beside the bed. It was cold, but he drank it and then slowly dressed. His clothes were dry, and they had been brushed, but they felt oddly stiff after their soaking.

In the hall downstairs he found a gendarme. The gendarme intimated—it was barely a suggestion, certainly not an order—that Monsieur Bren had said that he thought it might be better if Nap did not go outside the house until Monsieur Bren returned. Besides, the rest would do Monsieur's wound good.

"When will he be back?" asked Nap.

"This afternoon," said the gendarme. He added that Monsieur Bren was making inquiries. His friends were making inquiries, in fact everyone was making inquiries.

All very fine, thought Nap to himself, as he sat in the sunlight, in the parlour, redressing the hole in his side. It was puffy but clean. Even his inexpert eye could see that there was nothing dangerous about it. All very fine, he repeated, but here am I, sitting in an unknown house, in a district of France about which I know only that it lies somewhere to the west of Angers, on the Loire, while an uncertain number of people are making some vaguely comprehended inquiries. At the Old Bailey in London the trial will be in its third day. For all the information I have succeeded in obtaining I might just as well have remained in London.

Nevertheless, although he rehearsed this argument to himself several times as the day wore on, yet he found it difficult to be dissatisfied. He had a feeling—a feeling which he shared oddly enough with Macrea who was to give voice to it, that same night, to Mr. Rumbold. He felt that enough had been done to start things going. The train had been truly laid and fired, and sooner or later would come the explosion, and the truth would erupt, from the darkness in which it had been hidden so long, into the light of day.

It was six o'clock before anyone arrived, and then it was not Monsieur Bren, but one of his assistants, a young lieutenant of police. "Would a car ride trouble you?" he asked.

"I'm quite fit," said Nap. "Rather a fraud, really."

"Some of the going will be rough."

"To the Ferme des Grands Puits?"

The man looked surprised: then nodded his head.

Nap took leave of his host, whose name he still had not discovered, and they got into the police car: the lieutenant, the two gendarmes, Nap and a police driver. It was an open car, and Nap was soon glad of the leather coat which someone had lent him. They crossed the river and kept to the north bank, through Saumer and Bourgueil, and it did not seem long before they were turning off at Pont Boutard. Then a right fork, and they were bumping up the track and his time was fully occupied holding himself off the side of the car as it lurched and slid.

At the last moment, as they reached the point where the track ran out of the woods and he knew they would be coming in sight of the farm, he saw something which puzzled him. It was just over the brow of the hill, a steady glow, like the full moon coming up. As they topped the last rise, he saw that the light did not come from the farm buildings at all: it was lower down the hill. It looked like a small searchlight on an arc lamp, and it was slung on a derrick beside the superstructure of the well. There were a lot of men doing something with ropes, which ran to a second derrick and a pulley.

THE car drew up, and everyone got out. Their arrival caused a little stir among the group at the wellhead. The lieutenant had a word with a grey-haired man, who seemed to be directing operations and whom Nap understood to be the prefect of the district.

"Would you care to descend?" said the lieutenant.

"Descend?" said Nap.

"It is perfectly safe."

"I'm sure it is," said Nap weakly. He was aware that Madame Delboise was watching him.

The next thing he knew was that he was sitting in a sort of bosun's chair. When he looked up, the night sky was a pale oval above his head. Far below him, a glow-worm of light came and went. The descent was jerky but controlled, and Nap, like Alice in similar circumstances, found that he had plenty of time to wonder what was going to happen next.

What did happen was that the descent ceased and a hand came out of the darkness and grabbed his heel. The electric torch came on again, its beam focused now on to a shallow cavity at a point where the wall of the old dry well met the floor.

The light illumined the cavity and what lay in it. The little heap, the scraps of cloth, the leather belt, green with mildew, the thin, white bones.

"Allow me to present you," said the voice of Monsieur Bren in his ear, "a gentleman for whom many people have been looking. Lieutenant Julian Wells."

* * *

"Hallo, Angers," said the voice impersonally. "I have no answer from your London number."

"Curse it," said Nap. "What's the time?"

"Eleven o'clock," said Madame Delboise. "Your father must be making a night of it."

"He's more likely to be in bed and asleep," said Nap. "I'll try to get Macrea at his chambers. It's an off-chance. He might be working late."

Here he missed both Macrea and Mr. Rumbold by a few minutes. But just before midnight, in desperation, he rang his own home again. His father had just got back. Then Nap really started talking.

* * *

THURSDAY

The morning of the fourth day of the trial opened with a drenching downpour of rain. Nothing, however, could now damp the general interest. The queue for the gallery was longer than ever. The trial had grown, in the mysterious way that a murder trial will, and had possessed the minds of the public. Rex *v.* Lamartine was news.

Possibly the most worried man in the court was Macrea. The whole case now lay in his hands. Truth had come up from the bottom of a well and he knew everything. Yet his next move was far from clear to him.

The procedure of a criminal trial was, he considered, singularly ill-adapted for the bringing out of the truth about any crime. It was shaped and constituted to one end alone: to show whether or not a particular person was guilty. This end it achieved admirably. But it could not be pushed beyond its function.

He knew now, of course, who had done the murder: why they had done it, how they had done it, and when they had done it. Whether he would be able to demonstrate this in court was another matter.

None of his doubts was betrayed by his well-trained face as he rose.

"My lord, members of the jury, I had intended to begin the proceedings with my final address. In the interim—to be precise, at ten minutes to midnight last night—information of such importance reached me that I realized I should not be doing my duty to my client, or to yourselves, if I did not make some special effort to present this to you. My difficulty has been how to do so. Particularly since most of this information concerns what I may call the French side of this case, and the witnesses who could speak of it are either dead or not easily available. In the event, I have asked the co-operation of the prosecution—and I must place it on record that this co-operation has been very generously given."

He smiled at Mr. Summers, who smiled back thinly. He had been roused from his bed by telephone to a conference at six o'clock in the morning, and he was not feeling at his best.

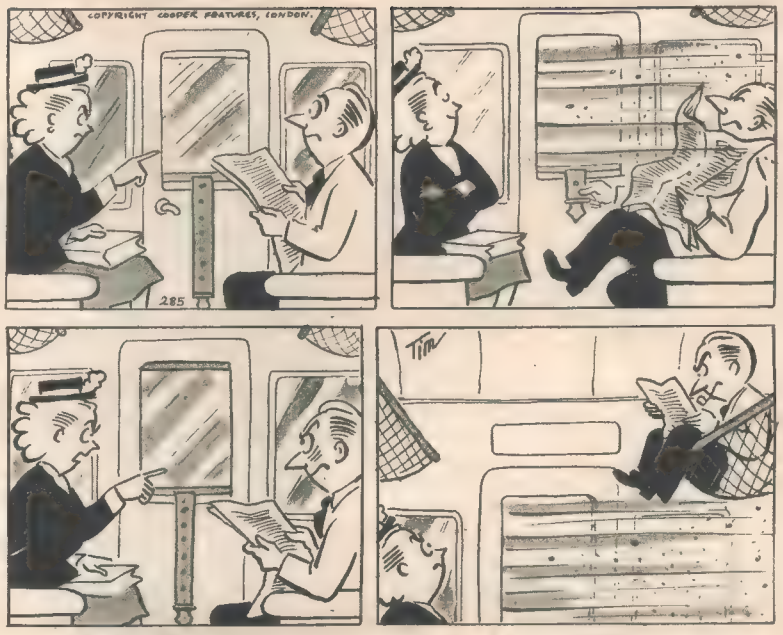
"I have decided, with your lordship's permission, to recall three of the prosecution witnesses. Their attendance here has been arranged. I have further asked—as would be normal when they were giving evidence in chief—that none of them be in court when the others are giving evidence. This has also been agreed."

"I have no objection," said Mr. Justice Arbuthnot warily. "Are the matters on which you wish to question them connected with their previous testimony?"

"I shall ask them nothing, my lord, which could not properly have been put to them on the previous occasion."

"Very well." His lordship still

OH, JOHNNY! *by TIM*



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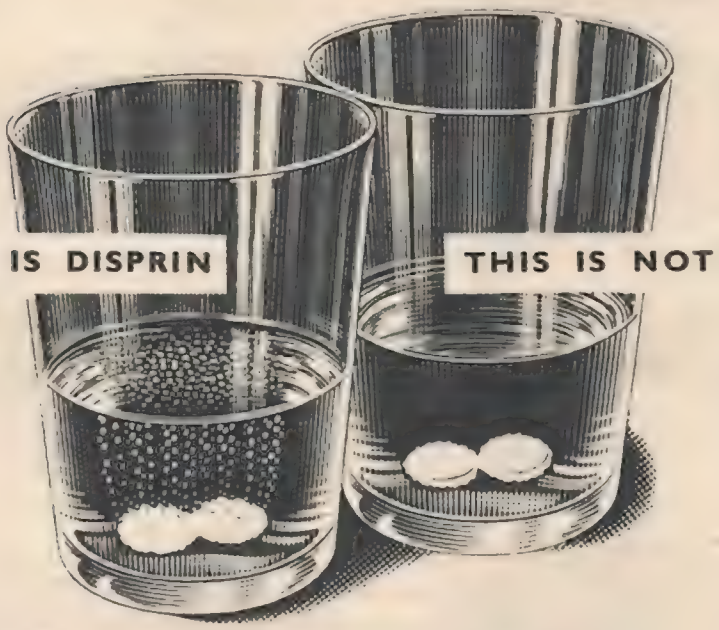

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did not seem very happy about it.

"Call Major Ammon."

There was a stir in court, and a pause while the major took the stand.

"Major Ammon, in your evidence you stated that you were responsible for the English end of Major Thoseby's operations in Occupied France. Were you also responsible for dispatching Lieutenant Wells?"

"I certainly knew he was being sent, and assisted in some of the usual preliminaries. I didn't actually brief him myself."

"Now, Major Ammon. When Lieutenant Wells was parachuted into France did he—I want to be particularly careful not to lead you on this—did he take anything with him beyond the usual outfit which a man on such a mission would take?"

"Did he—oh, I see what you're getting at. Yes, he took a great deal of money."

"Perhaps you could tell us why he took this money?"

"Yes. We thought it important—particularly at that time, you know, when the Resistance movement was beginning to get the support of the better class of Frenchman — that everything taken should be properly paid for."

"I quite understand."

"It was necessary to replenish funds from time to time, and it so happened that Lieutenant Wells was selected as a carrier."

"In what form was the money carried?"

MAJOR AMMON paused before answering. "In this case it was in gold. The gold was cast in thin tablets each weighing exactly seven ounces. The carrier had a special belt, with slots to contain a great many of these tablets. One man could carry approximately eight thousand pounds sterling in gold, without discomfort. I am speaking, of course, of gold as it was then. It would be worth more now."

"Have you any idea what happened to this gold?"

"We presumed that it had fallen into the hands of the Gestapo. Wells, so far as we know, had no contact with anybody between the time he landed in France and the time he was captured, to whom he would have been authorized to hand the gold."

"The gold was never traced?"

"Never to my knowledge."

"Thank you, Major Ammon. I do not know if my learned friend . . . ?"

"No questions," said Mr. Summers.

"I am afraid that I do not quite follow all this," said the judge. "If this gold never reached Major Thoseby, Mr. Macrea, surely it could not constitute a motive for Major Thoseby's murder?"

"I agree with your lordship," said Macrea smoothly. "It might, however, constitute a motive for the murder of Lieutenant Wells."

Point one slipped across, thought Mr. Rumbold.

Monsieur Le Commissaire Lode was then called.

"Monsieur Lode," said Macrea, "when you were giving evidence you spoke about your work on the Tracing Staff at Arolsen. Can you tell us roughly the lines on which the Bureau worked?"

"In many ways. We had the records of the prisons, and even when the records of a prison had been destroyed there were often duplicate records, kept by a higher authority, that we were able to consult. The German passion for order and method was very useful to us there. In many cases, also, we were able to interrogate the prison staffs themselves. Unless they happened to be accused of war crimes, they had no incentive to suppress the truth. Then their stories could be cross-checked."

"In short, Monsieur Lode, a thorough use of the investigating machinery at Arolsen would most often produce a positive result?"

"Almost always."

"Let me put this to you then: if Major Thoseby was looking for traces of some Gestapo prisoner—for the sake of argument, let us say, if he was looking for Lieutenant Wells—and if, after diligent inquiry *he failed to find any trace of him*, what conclusion would you come to?"

"The prison in which Lieutenant Wells was supposed to have been confined was, of course, known?"

"Yes."

"Then I should say that it was almost certain that Lieutenant Wells never fell into the hands of the Gestapo at all."

"Thank you."

The judge said gravely: "I should like to be quite clear, Mr. Macrea, exactly what it is you are suggesting to the court."

"I am suggesting," said Macrea, "that Lieutenant Wells was murdered for the gold in his belt." There was a gasp from Victoria Lamartine, listening, white-faced. Macrea disregarded it. "I am suggesting that Major Thoseby, slowly, cautiously—reluctantly perhaps — had at last reached that conclusion. I am suggesting that when you find the men who murdered Lieutenant Wells you will not have to look any farther for the murderers of Major Thoseby."

"I see." Mr. Justice Arbuthnot thought this out. The silence in court was intense. "You wish to call one further witness, I understand."

"If you please. I have some questions now that I should like to ask Monsieur Sainte."

An usher went out: minutes passed, but the swing door remained closed. Then the usher reappeared and spoke to one of the policemen.

Macrea's voice rode over the rising tide of conjecture. "If Monsieur Sainte is not here," he said, "then perhaps his waiter, Carnino, could assist us."

Nobody seemed able to do much about this, either. A very long minute passed.

The public in the gallery were showing signs of getting out of hand, while the Press were clearly torn between a desire to reach a telephone and an urge to see the matter through to its conclusion.

"It would appear, Mr. Macrea," said the judge, at last, "that neither of the witnesses you have named can, at the moment, be found."

"You surprise me, my lord," said Macrea, untruthfully.

INSPECTOR HAZLERIGG said: "All right, all right. You were right and we were wrong—Inspector Parridge was wrong. But don't gloat about it."

"I'm not gloating," said Angus McCann. "I'm just glad that Miss Lamartine got off, that's all. The crowd gave her quite a reception, didn't they? Where are Sainte and Carnino now, by the way?"

"Somewhere in France. They got out down one of their two-way gold-smuggling routes, I should think."

"Do you know if Sainte and Carnino really were brothers?"

"We know a certain amount about them now," said Hazlerigg. "They were both Italian citizens—we've traced them under the name of Santi—who came to France in the

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thirties. They took the name of Marquis and ran the Ferme des Grands Puits as brothers. They may have been brothers, or it may just have suited their book to pretend they were. When they came over here they changed rôles and became hotel proprietor and waiter. Either way the deception was liable to be useful to them. They were born criminals."

"Yes. I can't help thinking that that Gestapo raid on the Père Chaise farm was a little *too* well timed."

"You mean they had the Gestapo tipped off that Wells was there?"

"Yes. I think so. The Gestapo drill, as Lode explained in evidence, was to raid at dusk. So the brothers Marquis went down with a farm cart and spirited Wells away at about four in the afternoon. When the Germans shot Père Chaise and the other men in the farm and picked up Miss Lamartine, there was no single outsider left who knew where Wells was. So they quietly cut his throat and dropped him down the well. Then they pocketed the gold and sat tight. As soon as they decently could after the war, they sold the farm and decamped. They used a crooked attorney in Angers, Maître Gimelet, to do the job, and killed two birds with one stone, because he was also contact man for the French side of the gold-running crowd. They needed professional help to dispose of the gold. When they got to England they used some of the money to buy the Family Hotel, and they must have been making quite a nice thing out of it. There were only two snags. The first was that the English end of the gold-running crowd thought that they were worth watching, and installed Mrs. Roper to keep an eye on them. They couldn't object to that. They were still realizing the gold, piece by piece, and it all had to be done on the black market."

"And the other snag?"

"The other snag," said McCann, "might be described as the possible conjunction of Miss Lamartine and Major Thoseby. It must have been intensely irritating to them. There they were, miles from the scene of the crime, the body disposed of in one of the deepest dry wells in France, the gold almost all realized, many of the actors dead. Yet all the time, week by week, and month by month, retribution was coming upon them. Vicky Lamartine and Eric Thoseby. Of course, they had always realized that Vicky might be a nuisance. That's why they got her a job in the hotel—to keep an eye on her. What they hadn't foreseen was that Thoseby, working from another angle, was going to be equally dangerous. It only needed those two to have ten minutes' conversation, to mention their suspicions to each other—and the truth would have been out."

"Yes," said Hazlerigg drily. "Very uncomfortable for them. They took quite vigorous steps when the time came, didn't they?"

"Vigorous and logical. There was something almost classical about the way in which they set the two menaces to cancel each other out. Thoseby wished to come to the hotel. Very well, he should be encouraged to do so. Vicky mustn't see him at once. All right, then, tell her that Thoseby wasn't arriving till eleven o'clock. I don't know what devious and damnable alternative plans they had hatched. It all turned on when Thoseby went up to his room. In fact he went up before Vicky came back. That was all that mattered. At about twenty past ten—he would leave it as late as possible so that the medical evidence wouldn't conflict—Sainte goes upstairs, knocks at Thoseby's door, goes in, says something conventional about he hopes Major Thoseby has everything and is quite comfortable. Perfectly comfortable, perfectly comfortable, says Thoseby. Splendid, says Sainte, here's one thing more. Whips out the knife he's been holding in his gloved hand—a kitchen knife which he knows is already well covered with Vicky's fingerprints—and goodbye Thoseby."

"And then?"

"THE next bit's quite easy, too. Macrea had most of it in his summing-up. Thoseby slides gently to the floor. Mrs. Roper's wireless would drown any noise there was. Sainte pushes the knife down the back of the sofa, walks out of the bedroom and locks himself in the bathroom opposite. Then he sits—and waits."

"Yes. There was nothing wrong with his nerve, as you said. What exactly is he waiting for?"

"Why, the signal that Vicky is in the reception desk and everything is clear."

"And the signal is given by——"

"Carnino, of course, from the kitchen. At about twenty to eleven. They were both Italians, and in a moment of stress they naturally spoke in Italian. Carnino simply whispers up to his brother that the way is clear and all is well. A Frenchman would have said *Bien*. Carnino says *Bene*—the 'Benny' that Miss Box heard. Sainte, when he gets the signal, goes back into Thoseby's room, presses the bell, and wipes it clean—a bit too clean, unfortunately for him. Then he comes out again quickly and walks down the passage—it's only conjecture, but it seems reasonable—as far as the empty bedroom. Vicky comes

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upstairs, along the passage, goes into Thoseby's room, and, somewhat naturally, screams. Sainte is well placed to pretend to be coming up the stairs attracted by her screams. We've only got Carnino's word that he was ever seen on the actual staircase."

"Yes," said Hazlerigg. "I think that's how it must have worked. After that, I suppose Carnino and Sainte worked together to delay the arrival of the doctor, long enough, anyway, to conceal the difference between a death at ten twenty and a death at ten forty."

"Yes, that's about it."

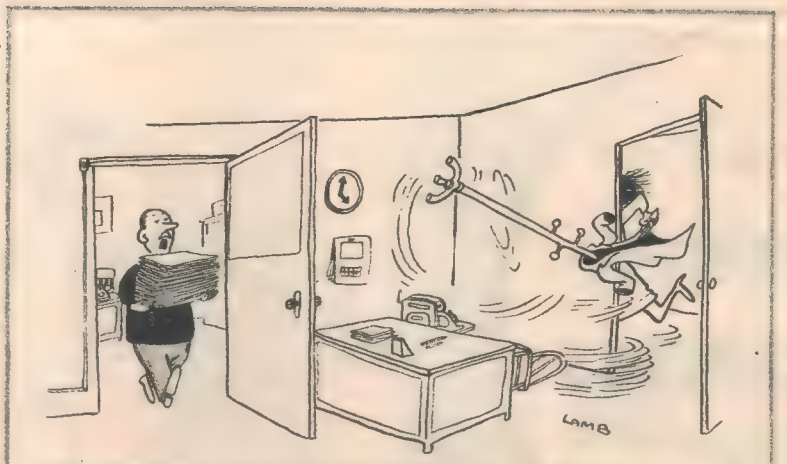
The two men fell silent.

"How's Nap?" said Hazlerigg.

"Fine," said McCann, "he's fine. The wound's absolutely healed." But he said it absently. His real mind was still turning over the case.

"Do you think," Hazlerigg said, at last, "that they meant her to hang?"

"I'm sure they didn't," said McCann. "The most they expected was for her to be found guilty under provocation, and either pardoned or given a nominal sentence for manslaughter. That, incidentally, was



"Oh, Miss Burns—if you haven't left yet, I'd like you to . . ."

the line of legal defence that Sainte bespoke and paid for—and with all possible respect to everyone, if Vicky hadn't been so determined to change her lawyers, it's just about what would have happened."

"Yes," said Hazlerigg again. "You seem to have got everything tied up. All we've got to do now is to catch them. Then we can start all over again, trying to explain it to a jury."

"There's just one thing I can't understand at all," said McCann. "Why did Sainte—or Marquis, I suppose I should call him—ever allow the girl near him? I know that I suggested that he wanted to keep an eye on her, and that may be true, but look at the risk he was running. It only needed an acquaintance from France to come into the hotel and address him as Marquis, in Vicky's presence, and the fat would have been in the fire. Perhaps the risk was small, but why run it at all?"

"Criminals," said Hazlerigg, "are people with extraordinarily acute apprehensions. They revisit the scene of the crime to see if they have overlooked some obscure clue—and a blundering policeman, who doesn't like the look of them, arrests them on suspicion. They take wild precautions to guard against imaginary dangers, and the precautions themselves lead to their undoing, long after the crime has become undetectable. In short, they make mistakes. Which is as well, for if they never made mistakes we should never catch them."

THE END

"The Trial of Victoria Lamartine" by Michael Gilbert has now been published in book form by Hodder & Stoughton, under the title of "Death Has Deep Roots," at 9s. 6d.

THE FLYING HORSES

Continued from page 20

not only an enamel bath tub large enough to bathe the whole body, but also a basin, where face and hands could be washed in either cold or hot water.

But the real miracle was a snowy white receptacle, elevated from the floor by the span of two hands. When the lid was lifted, Piliso saw that water stood in the bottom, and when the Fingo pulled a hanging chain, great quantities of water surged from nowhere, but, strangely, did not overflow on to the floor. Piliso had stepped back quickly, fearing it might. Instead, it disappeared magically.

But though overcome with all these marvels, Piliso could still raise the question that had been bothering him. "All this talk of fire-stones here and fire-stones there in my body . . . what means this chatter? Is it that the whites do not know that those crystals come only from the rock and gravel of the earth, and that they never grow in a black man's body nor sprout from his ears and teeth?"

The Fingo chuckled. "It is so known, ignorant one. But the white lords also know that many blacks try to leave the compound with precious fire-stones, to sell them to evil white men without the gates. The crystals have been found in the hems of garments and in the hair, in hollow teeth and in ears. Some make cuts over their shins, stuffing fire-stones deep against the bone. Others have swallowed them. For such reasons you have been examined. Is all now clear in your sluggish Kaffir mind. . . ? Now I leave you. Good night."

PILISO had seen much, experienced much and been told much, and his head felt clogged with thought. His recently combed scalp itched intolerably. He took a bar of soap in hand and, kneeling on the bathroom floor before the wonderful receptacle, dipped his head in, then lathered the hair long and thoughtfully. When his black wool was well cleansed, he put his head deep into the receptacle and pulled the chain. Cold water thundered and raged with deafening sound, while he shook his head from side to side to rinse off the suds before the flood would subside. He found a towel and rubbed his scalp. Never had he felt better, more invigorated! The marvels of this great day! The joy he would have in relating them all to Nombie, particularly about this wonderful invention for the washing of the head!

With deep affection he studied the head-washing machine. Its gushing noise had tempered to a low hiss. It was preparing itself for another head, another washing.

"These whites!" Into Piliso's eyes there came a mellow light, a yearning. "Verily, they think of everything!"

HE breakfasted heavily, next day, on mealie-meal pap and sour milk, black bread and dark treacle topped off by a beaker of coffee. Later, the Fingo orderly came into the ward.

"The dung examination is finished!" he announced.

"And was there great disappointment among the white lords when no fire-stones were found?" Piliso glared at the Fingo, while the other blacks in the ward burst into peals of laughter.

The Fingo grinned, but wryly. "No, lowly Kaffir. Strangely, there was joy among the white lords. It appears that they feared there would be other fire-stones on your unworthy body, thus exonerating the foreman Kolwané. Then they would have had to send you to the tronk instead of him!" He tapped Piliso's arm. "Come! Your clothes and foolish bundles are clean and waiting. Follow me! . . ."

It was the same room as yesterday, but today it seemed to be filled with frozen mist through which the morning sun shimmered dimly. Yes, it was a special day! Piliso's clouded vision moved to the desk, on which slumped a weighty canvas bag. Without preamble the Inkoos Fubisi untied the string at the neck of the bag and turned it upside down. Jingling silver coins sang their different tunes until all came to rest. Lo, here were more coins than Piliso had ever seen at one time before! Then the Inkoos Fubisi, through the Zulu interpreter, ordered Piliso to count the money that was in the pile.

With only ten fingers and as many toes, how could he tally beyond twenty? But to please the white lords he pretended to make a reckoning, moving his lips as he shunted all the sixpenny pieces, the shillings, the florins and, last of all, all the half-crowns from pile to pile. And then, when the new pile held all the coins, he looked up, speechlessly.

The interpreter nudged Piliso. "Tell the white lords . . . is the money right? Fifty pounds . . . is that what your counting showed?"

Piliso mumbled, "Verily, it is right. Fifty pounds." The interpreter translated.

"All right, Jim . . . ah . . . Piliso." The Inkoos Fubisi handed Piliso a writing stick. "Sign here . . . the usual cross."

The Inkoos Fubisi was saying more, the Fingo translating, but Piliso hardly heard. Then he did hear, and stopped abruptly. The—the buggy was outside, did he say? The buggy! With tongue caught against the dryness of his mouth, how could he manage to thank the Inkoos Fubisi for such bounty?

He forgot even the silver as he moved speechlessly towards the door. Buggy! Horses! Were they *white* horses?

Before the hospital door, stamping slender legs and swishing long tails, snorting in their eagerness to be in movement, were two of the most beautiful white horses Piliso had ever seen. Moisture filled his eyes; he viewed the animals through hot tears which made them seem to quiver as if they were flying. Lo, they looked like gigantic Amatechana — Great White Herons—rising from the river swampland below his home!

He wiped his eyes to see the beautiful animals clearly. Yes, they were exactly the horses he had always craved! The one on the right, because its whiteness was that of the heron, he would name 'Ntechana. The one on the left, because it was cropping at a tick on its flank, made him think of the Bebelé—the Tick Bird, another species of heron—and so he would name that horse Bebelé.

"'Ntechana . . . Bebelé!" Piliso murmured.

IT was a long trek—almost five hundred miles—to his village near the precipice above the Great Fish River. Because he would not force the beautiful white horses, many days elapsed before he approached the rise of the low hill over which lay his own hut, his wife, his son.

There would be smoke coming from the door of his hut and smoke sifting through the thatched roof, for verily, Nombie would be cooking dinner even now! And little 'Ndlambie would be playing in the yard, or perhaps climbing among the branches of the baareboon tree, at this season scarlet with flamboyant blossoms. Straining his ears, Piliso could actually hear the distant baaing of hungry calves penned in the side kraal, anxiously waiting for their mothers' return.

To stretch out the approaching happiness, Piliso closed his eyes and drove slowly up the well-remembered road, while the noon breeze from the river blew comfortably upon him. He drew rein when he knew that he was over the hump. The village below would be in sight!

Unable longer to bear the sweet suspense, Piliso opened his eyes. There it was—the village, the kraal, the tree covered with its mist of scarlet! From the depths beyond the precipice, where the river ran, rose a lazily flapping white heron, and Piliso cried a greeting to the namesake of his white treasures! Had ever any other Kaffir of this village come home from long service with De Beers behind two white horses? No—never! Two white horses of his own—what distinction! What immortality, in fact! For he knew with surety that from now on, for his lifetime, and afterwards for his son's lifetime, and then his son's sons' lifetimes, he, Piliso, would be known as "The Man of the White Horses."

A legend. This was the way legends were born, he reflected, born from fact and circumstance, embellished by time. . . .

And then he realized that, due to the fact that he had named both of his white horses with the names of great white birds, it would quite likely become a part of the legend that his white horses had had wings—and could fly! By his son's sons he would be thought of as a man of magic, "The Man of the Flying White Horses." Forgotten would be the fire-stone, the bag of silver; forgotten, perhaps, even his name, Piliso. But the white horses would be remembered by this village as long as the village endured.

"Beautiful ones! Fortunate, deathless ones!" he said fondly. "Now you may move forward as on wings! Home is near! *Hamba!*" THE END

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HUSH-HUSH BUILDERS OF THE JET AGE NAVY

Continued from page 12

out into the Channel and after some difficulty succeeded in capturing a dolphin off Alderney. The dolphin was then injected with embalming fluid and towed along the Haslar tank at various speeds while the resistance was measured.

Results do not suggest that we shall see revolutionary submarines shaped like dolphins or whales. Dolphins do not have to fire torpedoes: for that operation a rigid body is necessary. But experiments show that the design of our submarines compares well with that of the pike, which is one of the fastest-accelerating freshwater fish.

On a wired-off and guarded island site in Rosyth dockyard, by the banks of the Firth of Forth, is the Naval Construction Research Establishment, created in 1943. Strength of every kind is what the scientists there are searching for in their elaborate tests. They measure the resistance of metals to every form of pressure, test the strength of structures and welding, experiment with insulation and high explosives.

D. E. J. Offord, Assistant Director of Naval Construction, was made first superintendent of the establishment and he is still there in quest of strength. Metallurgists under his direction at Rosyth are now working on the problem of the Snort.

His staff is drawn from the Royal Naval Scientific Service as well as the Corps of Constructors, and they carry out their tests on samples of steel and other metals, on half- and quarter-size steel models of ship sections built at the establishment, and on real ships.

Bombing Of "Nelson"

Most spectacular of their efforts were the bombing of the old battleship *Nelson* in the Firth of Forth, and the underwater explosion trials in Loch Striven. Local authorities protested against the bombing, and the research establishment had to sign a guarantee that they would not sink the *Nelson*.

Elaborate tests against old warships were made with many different types of explosive and weapon in the Loch Striven series, and the effects of underwater blast on hulls were carefully measured. Smaller explosions are regularly staged against the experimental ships of the establishment in a quiet bay just below the Forth Bridge, and although the boffins handle high explosive in a seemingly casual way, there has not yet been a serious accident.

Because it is essential to know exactly what goes on under the surface of the water when an explosion takes place, Dr. Hugh Powell, physicist at N.C.R.E., has perfected a method of taking underwater pictures in colour at 250 times the speed of the actual detonation. If Dr. Powell were to run his film camera for only one minute, the results would take more than four hours to show on the screen. He uses a tank of specially purified water, for his major problem is lighting, and only ultra-clean water will transmit enough light to enable him to take photographs in colour.

Stronger Than Sun

The camera is held, lens down, in a frame facing the surface of the water, but by a series of mirrors it is focused on the spot where the detonator will explode under water. The camera can also be placed to show what is happening on the surface of the water as well as the submarine effects. Lighting is provided by a series of ordinary flash bulbs, which are let off a dozen at a time.

For a film of an explosion lasting less than half a second about eight dozen bulbs are used in a continuous series, giving a light between six and seven times as strong as sunlight. This experience came in useful when the Naval Scientific Service was ordered to produce, as quickly as possible, the underwater television apparatus which successfully located the submarine *Affray*.

Dr. Powell's strangely beautiful colour films show how, after an explosion, an enormous bubble is formed beneath the surface of the water, and how it alternately expands and contracts. They show how the explosive bubbles from missiles let off near the surface are forced downwards and then rise again. And they show the pattern of the minute drops of water that are forced into the air by an underwater explosion. All these pictures are of value in assessing the causes of damage to ship's plates after the

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JOIN the BIRTHDAY PARTY!

THIS week's 1,803rd list of prizes, totalling over £1,300 in value, is headed by another giant First of £750—and each of the three chief awards includes double invitations to London for *Bullets* 39th Birthday Celebrations.

"I could almost write a book on my never-to-be-forgotten weekend in London!" declared one of last year's guests, Yorkshire reader C. J. Wright. The programme in store for *this* year's party guests is even more thrilling—and as winner of that £750 fortune, or one of the other chief prizes, you can be amongst the guests to enjoy it all with the companion of your choice. Your coupon awaits you below—use it to win a fortune and the happiest weekend of your life!

HUGE 2-in-1 FIRST

£750 CASH PLUS BIRTHDAY CELEBRATION WEEKEND

£50, £25 each plus Celebration Weekend

Your Celebration Weekend for Two includes sightseeing tour of London, visit to Selfridges, tour of London Airport and flight over London, seats at Drury Lane Theatre to see *South Pacific*, lunch at the Royal Festival Hall Restaurant, pulling the Giant Cracker and helping to cut the thirty-nine candle-power cake at *Bullets* Birthday Tea-party!

£10, £9, £8, £7, £6, 2 of £5, 10 of £2 10s.

100 FESTIVAL CROWNS

2,000 "GOOD SHOT" AWARDS

TELEVISION, TOO!

Complete TV installation, value £100, to highest prize-winner whose winning entry was one of FOUR or more *Bullets* on single coupon or plain-paper entry sheet. (Radiogram with records, or extra cheque, available if preferred.)

RULES 1. First Prize for best *Bullet* received. Others in order of merit—the test is of cleverness, aptness and originality.

2. Editor undertakes that all *Bullets* received shall be accorded careful consideration by competent Adjudicators.

3. As entry-fee enclose P.O. or stamps as indicated on coupon. Fee submitted will be taken to cover *Bullets* in coupon order—any sent in excess will be disqualified. Plain-paper entries are allowed. If using P.O. make payable to JOHN BULL, cross /& Co./, write name and address on back. Coupons must not be mutilated. Forces half-rate for *Bullets* and Crosswords for entry-fees not exceeding 2s. if coupons personally completed and Service rank indicated.

4. Entries accepted by post only and on condition that results of this week's Contests in *Bulletin* and *Gazette*, dated Oct. 27, and in JOHN BULL, dated Nov. 3, also Editor's decision in any matter of dispute, are accepted as final and legally binding. Odhams' employees (and families) ineligible.

FINAL "BULLETS" BIRTHDAY OFFER NEXT WEEK!

Add 2, 3 or 4 Words to any of these "EXAMPLES"

To make a *Bullet*, add simply TWO, THREE or FOUR words of apt and original comment to any of the *Examples* below. To use an incomplete *Example*, first complete it with any one word in place of dotted line—then make your *Bullet* as usual.

The Festival's Over, But Man's Epitaph
In Communism's School Mystery To Me
Cry Of A Child
The Evil Eye
He'd Be Rich If
A Sportsman
Beneath The Stars
Paradise
Adding It All Up
Good Business
Bulldog Dad
Out With The Boys
Every Birthday
Postponed
A Bit Rusty
Shock For The Burglar
Well Away
Flew Off The Handle

Incomplete "Examples" —see instructions

Land Of The.....
How The.....Live
.....For Everybody
Why We Don't.....
Seems To Have.....
"Put That.....Down!"

NOTE.—You may enclose *Bullets* and Xword entries in same envelope covered by single P.O. for combined entry-fee. Mark envelope "Combined," top left-hand corner.

POST ENTRY

"Bullets" 1,803 (or Xword 755) "John Bull," Long Acre, London, W.C.2 (Comp.)

Winners from Wigan, Glasgow, Camborne, Edinburgh, Birmingham, Stockport, Malton and Sheffield are among these *John Bull* readers who were guests at last year's Birthday Celebrations; you see them here beside the Victoria Memorial, facing Buckingham Palace. Study the plans for this year's party—and win your double invitation, plus £750, this week!

(Continued from next column)

50 Prizes of 10s. and 2,000 "Good Shot" Prizes have also been posted.

£650 BONUS: Under the published terms of *Bullets* August Tournament, £650 Bonus has been awarded to: A. Stork, 155 Gabalfa Avenue, Llandaff, Cardiff, £350 First Prize-winner in Competition No. 1,795.

"Bullets" Winners 1,798

FIRST PRIZE, £350: A. Shepherd, 5 Church Street, Dronfield, near Sheffield:

THE COST OF LIVING "RUNAWAY"—GRABBING *Won't* HALT!

£50: Mrs. F. T. Jones, 8 Broad Street, Ludlow, Salop: ONE MORE WELL—PERSIANS HAVE CLOSED—*Goodwill's*.

£25: H. Jones, Old Chapel House, Pentraeth, Anglesey: TO THE FARMER—MANŒUVRES BROUGHT *Real* CASUALTIES.

OTHER AWARDS: £10: Mrs. A. Jackson, 76 Kingston Avenue, Garlinge, Margate: THE COST OF LIVING—HITS YOU? REMEMBER DEFENCE! £10: Mrs. M. H. Sykes, 71 The Green, Rawcliffe, Goole, Yorks: BLUE—FINGERS, AGAIN LIGHTING CANDLES? £5: C. H. Owen, 66 Broomleys Road, Coalville, Leics: SPEAKS FOR BRITAIN—"WHITE MAN'S GRAVE"—CULTIVATED! £5: D. R. J. Porter, 30 Downing Street, Chippenham, Wilts: ONE MORE SEPTEMBER—RECALLS THOSE "DARKER DAYS." £5: G. Whitebread, 2 Chalkpit Cottages, Cotton Lane, Stone, Greenhithe: ONE MORE PIPE—FOR JOE'S "RACK"—ABADAN? £5: T. J. Wiggins, 35 Cross Flatts Row, Leeds: THE COST OF LIVING—DOESN'T DIMINISH ITS POPULARITY! £5: Miss E. Wilds, 27 Guisborough Street, Sunderland: THE COST OF LIVING—NEAR ALFIE, *Never* FALLS!

For ten winners of £2 10s. see *"Bullets" Bulletin*.

Continued in previous column

CASH AND FOOD PRIZES FOR XWORDS!

This Way To Win

FIRST complete Square in INK, giving your Answers to Clues below. Then, if you wish to enter *one* extra Answer to any *one*, *two* or *three* Clues, give each such word in full in "Extra Answer" Form below Crossword Square.

Across Clues **XWORD 755**

1. It isn't an unmitigated evil
3. An impatient boss is apt to put down
5. No man's voice should be smothered or this, just because his opinions are unpopular ones
7. Is associated with certain kind of school
9. You might well get lost, going right through one by yourself
11. One does not need to be vulgar to do this effectively
14. Sight of fine one awakens average woman's interest

Down Clues

2. As rabbits develop they get this
3. An incalculable number of people in this country die every year due to ravages of
4. When a man convinces himself he's the victim of cruel fate, he's apt to
6. When no dissatisfaction is expressed, silence may wisely be interpreted as implying this
8. One may be tempted to close one's eyes in order to be able to
10. You'll see one in busy street if rain falls suddenly
12. Having a this is one way of getting a drink
13. This word can refer to one kind of animal

£100 CASH 1st PRIZE

AWARDS VALUE £25

amongst 1st Runners-up and up to

50 JOHNNY-BASKETS

each value £2

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Up to 500 "SIGNPOST" PRIZES one for each 2nd Runner-up

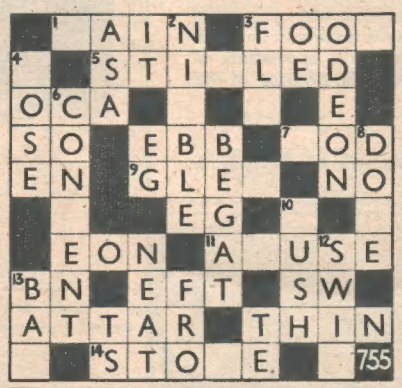
XWORD 750 RESULT

WINNING WORDS. ACROSS: 1, Stout. 3, Sash. 7, Bake. 9, Firm. 11, Face. 12, Make. 13, Pain. DOWN: 1, Stole. 2, Terms. 4, Houses. 5, Fiver. 6, Job. 8, Wile. 9, Foam. 10, Fun.

FOUR £100 SHARERS: Mrs. C. F. Day, 10 Ryde Place, Lee-on-Solent; Mrs. E. Fallows, 9 Barlow Lane, Reddish; E. Maplesden, "Cringleford," Sea Lane, Angmering-on-Sea; G. Maplesden, "Cringleford," Sea Lane, Angmering-on-Sea.

Awards value £25 for 1st Runners-up shared by 30 entrants, each of whom receives Food Parcel in addition. Twenty-two of these also qualify for 52-week Xword Season Ticket Bonuses. Useful "Signpost" Prizes to 2nd Runners-up.

£100 and "FOOD-PLUS" Prizes for this XWORD



CLUE	EXTRA ANSWER	Total Fee
No.		6d.
No.		1s.
No.		2s.

(Total fee shown includes entry on Square)

Puzzle and Form strictly copyright **755** Closing Postmark MON., OCT. 8

I enclose P.O. value..... No.....

Signed.....

Address.....

.....

In adjudication, all Extra Answers will be read in combination with each other and with all Answers in your Square. Thus your completed Square with one extra Answer to *one* Clue will represent *two* full Squares (Entry-fee 6d.). Square with one extra Answer to *two* Clues will represent *four* full Squares (Entry-fee 1s.) and Square with one extra Answer to *three* Clues will represent *eight* full Squares (Entry-fee 2s.). Use ink not pencil.

Single Square with 6d. P.O. or stamps covers dispatch to you of *Crossword Gazette* dated October 20.

Winner—sender of most meritorious set of Answers received—decided by Adjudication Committee on basis of aptness and accuracy. Ties divide. Entrants limited to one prize per Contest and to entry requiring not more than 4s. entry-fee. Signature indicates agreement to Rules.

EXAMPLE ..... 6d.

BULLET .....

EX. ..... 6d.

B. .....

EX. ..... 6d.

B. .....

EX. .....

B. ..... EXTRA TWO FOR 6d.

EX. .....

B .....

Closing Postmark **1,803** MON., OCT. 8

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With this coupon (which you can enclose with your entry) send P.O. 1s. for six weeks' *Bulletin* and *Gazette* at REDUCED SERIES RATE—first copy dated October 20. If requiring single copy only, affix 2½d stamp below.

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For Introductory copy of *Bulletin* and *Gazette* dated October 20 **STICK 2½d. STAMP HERE**

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616

full-scale explosion tests on actual vessels.

In contrast to these delicate camera studies is the new large testing frame, which is now being constructed at Rosyth to inflict battering-ram tests on actual sections of ship's hulls and other full-scale structures.

No other country in the world possesses such a structure. It consists of an enormous box made of steel girders, and it is seventy feet long, thirty feet wide and twenty-five feet high.

Enormous Honeycomb

The walls of the box look like an enormous honeycomb, and in each steel-girdered cell is a hydraulic ram. An overhead crane drops the section of the ship to be tested into the box. Then the hydraulic rams begin their pounding. Each ram is operated by an independent control, and can be adjusted to hit the steel plate of the ship at any angle. And each ram can exert a pressure of 500 tons. When the doors of the box are shut and the rams in the door and end wall are put to work, they can put on a pressure of 2,000 tons.

A series of strain gauges connected to electronic instruments in the control room measures the exact effect of the various pressures at every point of the hull. Structures which pass this ordeal will certainly measure up to the research establishment's ideal of strength.

Steel structures are tested at Rosyth by being put into a tank and submitted to terrific water pressures. The strain gauges which show how the metal reacts at every juncture consist of tiny strands of wire that are waxed on to the steel. As the metal gives by the smallest fraction of an inch the wires are stretched, and they communicate the movement of the steel plate by an electric lead to a measuring instrument.

In addition, a periscope, built through the tank, allows observers to watch or film parts of the metal structure from the inside while the water pressure is being exerted on the outside. Thus the behaviour of the metal and the joints, the welds and the bolts, is completely recorded and measured.

Steel Pulled In Two

Samples of metals for ship's plate are tested on a set of machines which are unique in Europe. It is fascinating to watch a strip of half-inch thick steel designed for submarine construction being stretched to breaking point. In this test, made on an American machine, a delicate weighing machine records the strain that is being put on the metal, and a needle on a graph paper shows when the steel begins to lose its elasticity.

One tough sample took a strain of more than forty-five tons before the slab of metal, about three inches wide and half an inch thick, began to show a narrowing waist; even then it was some minutes before the steel actually snapped in two.

The examination of metals for the

PNEUMOCONIOSIS RESEARCH UNIT

Dr. C. M. Fletcher, Director of the Pneumoconiosis Research Unit, asks us to state that the title of the article, "Dr. Fletcher Makes A New Man Of Dai Gard" (JOHN BULL, August 18), was printed without his knowledge. We regret any possible impression that Dr. Fletcher was advertising his professional skill.

[Every Trade Advertisement Guaranteed]

Navy's ships is so exacting that the scientists of N.C.R.E. have had to design special apparatus and work out their own tests to get some of the results.

It was necessary to find out the cracking point of thick steel plates in high temperatures, but no one knew how to do it until T. S. Robertson, principal scientific officer, devised an experiment which now bears his name.

He takes a narrow sample slab of steel with a hole punched in one end and places it in a specially designed frame. Into the hole is poured liquid nitrogen, which has a temperature of —80 deg. Centigrade. The other end of the steel sample is heated to a temperature of 80 deg. Centigrade, and by means of graduated marks Robertson can read the varying temperature at any point between the two ends.

When one end of the steel is cooking properly and the other is freezing, he gives a sharp crack on the cold end with a hammer. The steel cracks along the middle, and by reading off the temperature at the place where the crack ends, Robertson finds the maximum heat it can stand.

Over the door of Robertson's office is his motto in "Latin": *umaecum vibraecum*. Read slowly, it becomes: "You make 'em, we break 'em." He carries out this breaking-point test to the letter.

Guinea-pig Vessel

Besides its laboratory and small boat experiments, the Naval Construction Research Establishment plays around with two "hush-hush" ships.

One is H.M.S. *Cumberland*, an old cruiser, which is the Navy's guinea-pig vessel for trying out all kinds of new apparatus and gadgets, and the other is a new destroyer, H.M.S. *Oudenarde*, which is the research establishment's own pet victim.

So, with the accumulated experience of hull trials and porpoise experiments from Haslar and the results of the tested materials and structures from Rosyth, the Director of Naval Construction can go ahead on sound principles to create a balanced fleet.

His job does not cease with the production of new designs. Modern warfare demands new and speedier construction techniques. One that is being tried in the all-important anti-submarine frigates is the building of a ship in complete sections with the wiring already in place.

This is an advanced and unique form of prefabrication, and in such a complicated piece of machinery as a modern warship it demands a high degree of planning and craftsmanship. But it will help to assemble a frigate fleet quickly, and will also cut down the time necessary for refit and repair when the ships are in commission.

New Ideas Welcomed

Members of the Corps are always ready to listen to outside suggestions. Every idea put forward by a naval officer, rating or member of the public is carefully examined.

Some of them are good, but so often there is no known technique that can make them practical. If the constructors do find a new invention that will work they are quick to try it out. There is nothing brassbound, thick-skinned or rigid about the Royal Corps of Naval Constructors—except the ships they make.

THE END

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